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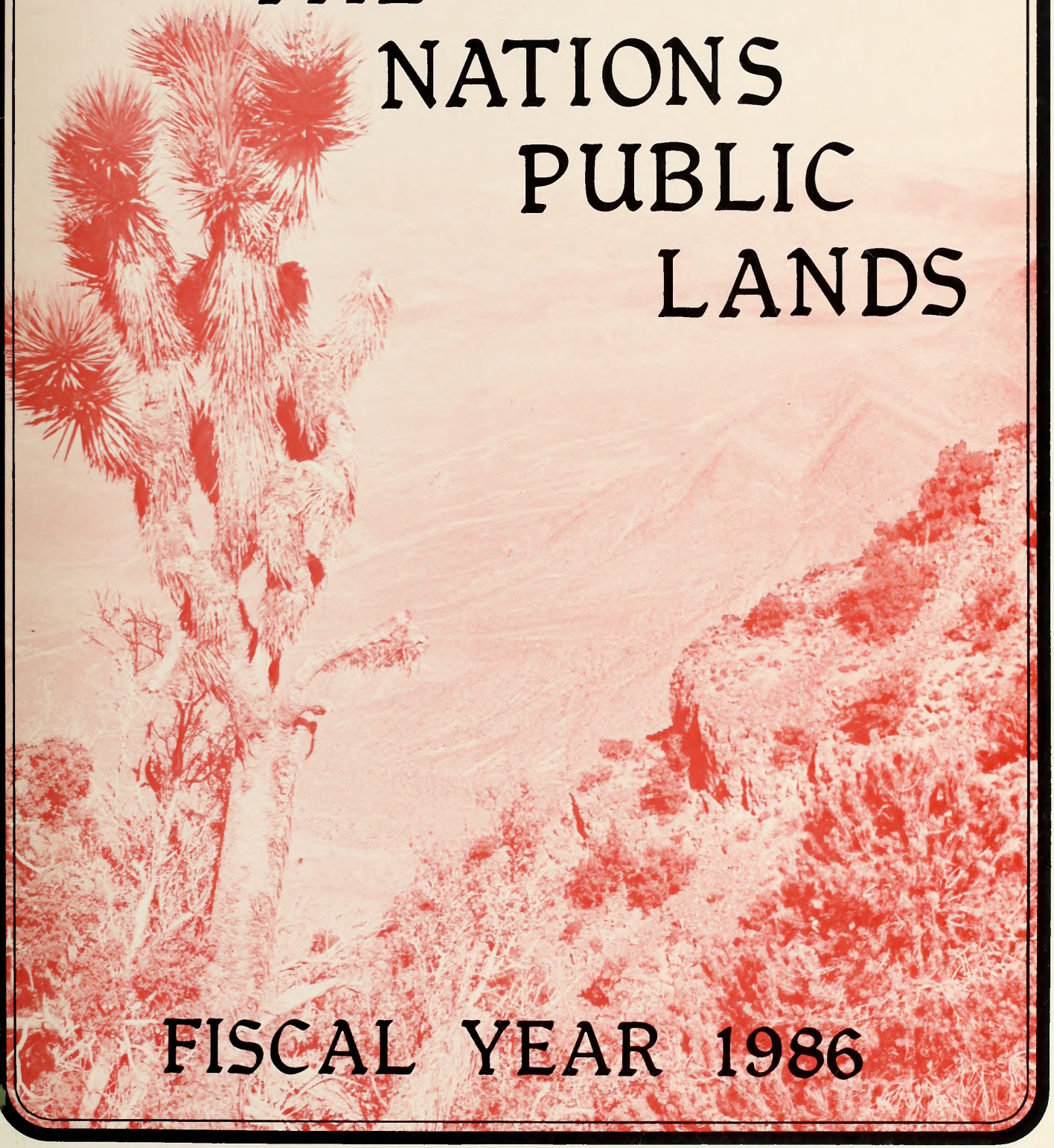
MANAGING THE NATIONS PUBLIC LANDS



FISCAL YEAR 1986

The Bureau of Land Management is responsible for the balanced management of the Public Lands and resources and their various values so that they are considered in a combination that will best serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield—a combination of uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness, and natural scenic, scientific and cultural values.

In 1986, the Bureau of Land Management celebrated its 40th anniversary as a Public Land management agency and the 10th anniversary of the Federal Land Policy and Management Act, the agency's primary legislative mandate for managing the Public Lands.

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MANAGING THE NATION'S PUBLIC LANDS FISCAL YEAR 1986

This report to the Congress of the United States on the management of the Nation's Public Lands is submitted pursuant to requirements of the Federal Land Policy and Management Act of 1976 and covers the period from October 1, 1985 through September 30, 1986.

"A Nation may be said to consist of its territory, its people, and its law. The territory is the only part which is of certain durability."

Abraham Lincoln
State of the Union Address
1862

MANAGING THE NATION'S PUBLIC LANDS FISCAL YEAR 1986

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I. INTRODUCTION

In the last half of the 18th century and the first half of the 19th century, the United States Government acquired most of the land west of the Appalachian Mountains, eventually owning more than 1.5 billion acres of public domain—lands which had never been in private ownership. Although the Federal Government has since disposed of most of this acreage to private citizens, industry, and State and local governments, some of the public domain lands were dedicated to establish the National Parks, National Forests, National Wildlife Refuges, military compounds, and other Government facilities. However, approximately 272 million acres—about one-eighth of the Nation—remain today as Public Lands, which are managed by the Bureau of Land Management (BLM) for multiple uses. In addition, BLM also manages the mineral estate underlying another 300 million acres of lands administered or owned by other agencies or private interests. Most of this acreage is located in the Western States, including Alaska, although small parcels are scattered across the Eastern States.

In 1812, Congress established the General Land Office to administer the public domain, with the primary purpose of passing public domain lands into private ownership. The passage of the Taylor Grazing Act in 1934 and establishment of the U.S. Grazing Service provided for active range management on the public domain, but this was seen as interim management of the lands pending their final disposal into non-Federal ownership.

In 1946, the Presidential Reorganization Plan No. 2 merged the Grazing Service with the General Land Office to create the Bureau of Land Management (BLM), within the Department of the Interior. BLM became responsible for managing all the resources on the Nation's public domain lands; however, with more than 2,000 unrelated and often conflicting laws pertaining to the public domain, the agency had no unified legislative authority to manage those lands.

When Congress enacted the Federal Land Policy and Management Act of 1976 (FLPMA), it established a coherent legislative mandate for managing the Public Lands and made BLM a true multiple-use agency. The law recognized that the Public Lands are a national asset, providing goods, services, and vast natural resources for millions of Americans:

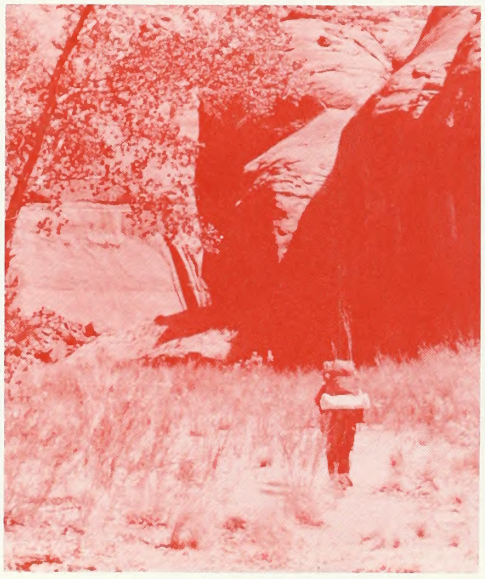
Photographer: Terry F. Knight

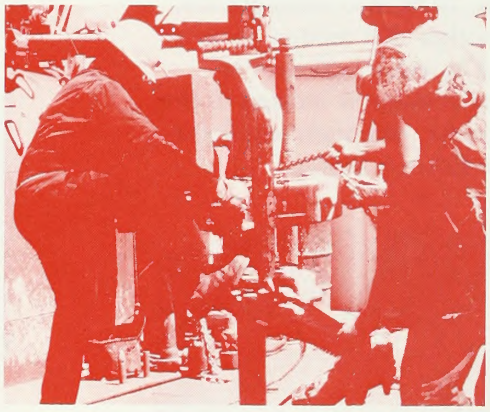
". . . Congress declares that it is the policy of the United States that . . .

"the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use . . .

"the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands . . ."

(FLPMA, Section 102[a][8] and 101[a][12])





BLM's planning and decision making process provides for many uses of the Public Lands: (top left) A BLM archaeologist sifts cultural site material; (lower left) backpacker enjoys scenic solitude; (right) Oil rig crew working on exploratory drill.

FLPMA provides a clear-cut policy that Public Lands are to be retained in Federal ownership and managed by BLM for all Americans, with the full participation of the public and a careful balancing of the interests of competing users.

With 1986 marking both BLM's 40th birthday and FLPMA's 10th anniversary, it is a good time to look at what assets BLM is managing today for the American public:

- about 1.4 billion barrels of proven oil reserves
- approximately 12.5 trillion cubic feet of proven natural gas reserves
- 10 million animal unit months of forage to support about 4.3 million head of domestic livestock
- the major portion of the undiscovered but geologically predictable domestic deposits of aluminum, antimony, beryllium, bismuth, cadmium, chromium, cobalt, copper, fluorspar, lead, manganese, mercury, molybdenum, nickel, platinum group metals, silver, tungsten, and vanadium
- almost 8 million acres of commercial forest land with a producing capacity of about 1.4 billion board feet each year
- about 80 percent of the Nation's oil shale
- more than 200 designated areas of critical environmental concern
- all 11 of the Nation's major tar sand sites
- thousands of unique recreational areas, including 15 Wild and Scenic Rivers, 21 National Trails, almost 1,500 recreation sites, 65,000 miles of roads suitable for recreation travel, over 4 million acres of lakes and reservoirs, and thousands of areas open to a wide variety of recreational uses
- in the Western States alone, about one-third of the Nation's total coal supply, plus substantial eastern coal reserves
- approximately 370,000 acres of designated wilderness and more than 25 million acres under study for possible designation
- some 35 percent of the Nation's uranium reserves
- more than 350 archaeological and historical sites recorded in the National Register of Historic Places and more than 1,200 properties considered to have nationally significant values
- world class deposits of phosphate, sodium, lead, zinc, and potash
- habitat for one out of every five big game animals in the United States, including many caribou,

brown and grizzly bears, desert bighorn sheep, moose, mule deer, and antelope
- nearly 85,000 miles of streams containing trout, salmon, and other sport fish—enough to encircle the Earth three and one-half times
- prospective sources of geothermal energy on more than 55 million acres, plus 2 million acres of known geothermal resource areas
- approximately 96 percent of all wild horses and burros managed, protected, and controlled under the Wild Free-Roaming Horse and Burro Act of 1971

The magnitude and value of these resources frequently leads to conflicting demands and uses for the Public Lands. The FLPMA mandate for multiple-use management is BLM's most powerful tool for reconciling the differences of opinion about how the Public Lands are to be managed. Multiple use facilitates the development of needed resources, while protecting other resource values from inadvertent damage or destruction. Through a planning, decisionmaking, and management process that balances alternative uses and involves the public at all steps, BLM can provide opportunities for many different uses of the Public Lands and ensure that the many resources of the Public Lands will remain available to the public into the future.

A stellar example of effective multiple-use management on the Public Lands is the California Desert Conservation Area, which was established by Congress through FLPMA. As required by FLPMA, BLM prepared and, in 1980, began to implement a comprehensive plan to manage the Public Lands within the area. The plan is a prime example of cooperation between the Federal Government and the citizens of the United States, who together identified the multiple uses of the desert and developed the framework for managing those uses.

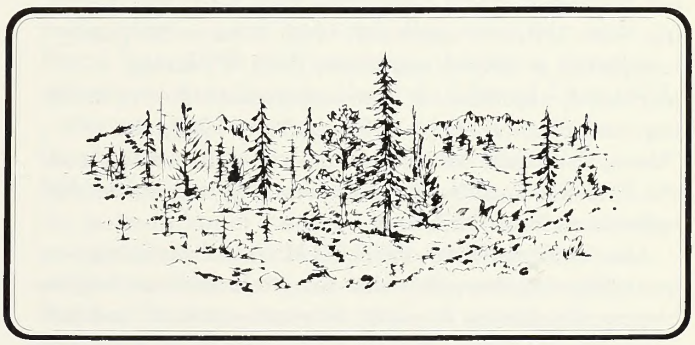
For the last six years the California Desert Plan has served as a blueprint for balancing the public's rights, privileges and needs on the Public Lands and the many significant resource values of the California Desert Conservation Area. Through this plan, BLM is able to maintain the public's opportunities to enjoy and use the Public Lands of the California Desert, whether for outdoor recreation, mineral production, or livestock grazing.

As President Ronald Reagan noted in 1986, on the 10th anniversary of establishment of the California Desert Conservation Area, "Recognizing both the needs of the people and the need to preserve natural resources, the California Desert Plan was developed through both innovation and active citizen involvement. Those who developed the Desert Plan were dedicated to multiple use of our public lands and sustained yields and were able to develop an effective framework which balances resources, use, development and protection. As a result, management of this area serves as a model for all public lands."

As in the California Desert Conservation Area, BLM manages all the Nation's Public Lands to meet the needs and desires of the American public. And as with the California Desert Plan, American citizens can play a critical part in Public Land management—today and into the future.

Active involvement in planning for, managing, and caring for the Public Lands is a positive way to participate in President Reagan's Take Pride in America campaign—a national public awareness campaign to encourage everyone to take pride in the Nation's natural and cultural resources. How Americans deal with the Public Lands today and tomorrow will determine what those lands will offer on BLM's 50th and 80th and 100th birthdays. BLM encourages all citizens to learn more about Public Lands, to become involved in their management, and to enjoy those lands.

The following pages provide a good idea of Public Land management during the Fiscal Year 1986, and of the issues and initiatives BLM faces during Fiscal Year 1987. In recognition of BLM's 40th anniversary, the following pages also provide brief anniversary portraits of BLM's public land management programs. Many of these programs are older than BLM itself, while others have been developed in more recent years to meet new public demands or policies. For additional perspective, the major legislative mandates affecting BLM programs, in particular FLPMA, are also briefly discussed. For more information about BLM and the Public Lands, please call, visit, or write your local BLM office.



II. FISCAL YEAR 1986 PROGRESS REPORT

A. Bureauwide Initiatives

Planning

An anniversary portrait . . . BLM began planning on the Public Lands in the late 1960s; today more than 80 percent of the Public Lands are covered by approved land use plans, including 32 resource management plans completed since 1984 under Federal Land Policy and Management Act (FLPMA) regulations.

FLPMA, enacted in 1976, specifically required the development and maintenance of land use plans for the Public Lands, placing special emphasis on public participation. In 1979, planning regulations were issued establishing resource management plans as the basic planning document. Other legislation containing planning requirements include the National Environmental Policy Act of 1969, the Federal Coal Leasing Amendments Act of 1976, the Surface Mining Control and Reclamation Act of 1977, and the Public Rangelands Improvement Act of 1978.

Planning helps the local manager, Public Land users, and other interested people to resolve resource management conflicts and land use issues. BLM seeks to improve resource management decisions on the Public Lands through a planning process that includes participation by the public and Federal, State, and local governments; use of the best available data; and analysis of alternatives. Resource management plans are designed to guide and control management actions relating to the increasingly competitive demands for Public Lands, while at the same time protecting and ensuring their long-term productivity.

Thirty-two resource management plans had been approved by the end of Fiscal Year 1986. An additional 6 plans were in draft form and available for public review, while 14 were in final form and awaiting State Director approval. With close to 50 plans completed or near completion, BLM is placing increased emphasis on plan implementation, monitoring, and maintenance. In Fiscal Year 1986, the "Using the Plan" training course was offered twice at the Phoenix Training Center, reaching more than 60 individuals from 15 States.

Also in Fiscal Year 1986, BLM issued planning guidelines for the renewable resource, land and rights-of-way, nonenergy leasable minerals, and air and fire management programs; these guidelines supplement overall planning guidance and are designed to improve the content, program coverage, and comparability of future resource management plans and amendments. Guidance for the remaining resource programs was issued in draft for BLM field office and public review.

The planning program also assumed overall program responsibility for areas of critical environmental concern.

Areas of Critical Environmental Concern

An anniversary portrait . . . since the enactment of FLPMA in 1976, BLM has designated 205 areas of critical environmental concern. Special management prescriptions have been developed for each to protect the identified special values.

FLPMA requires that BLM give priority to the designation and protection of areas of critical environmental concern. Such areas are designated to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources or other natural systems or processes; or to identify natural hazards. Natural areas may also be designated under FLPMA to maintain natural diversity and facilitate scientific research.

BLM's planning process provides for management of areas with special values, such as Jacumba Outstanding Natural Area in California.

Areas of critical environmental concern and natural areas are identified through BLM's planning process. Management prescriptions for each area are also identified and tailored to reflect the site-specific resources and local circumstances. Protection of the identified values is ensured whenever subsequent uses are undertaken or authorized.

During Fiscal Year 1986, 44 areas comprising more than 3 million acres of Public Land were designated as areas of critical environmental concern. This more than doubled the amount of Public Land accorded

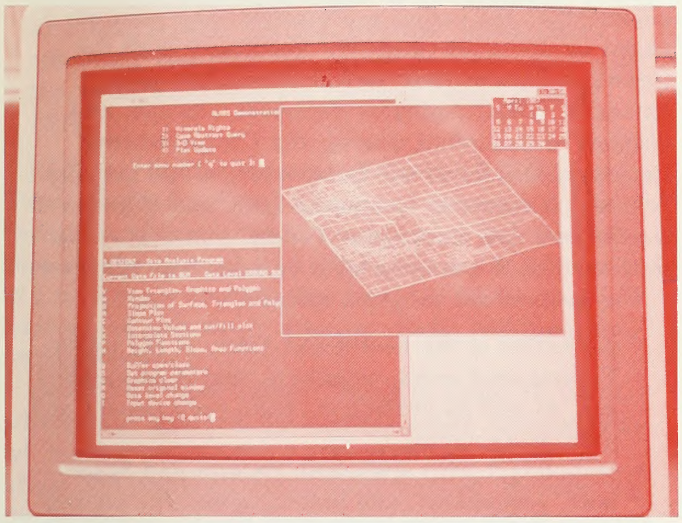
designation and reflects BLM's vigorous commitment to the appropriate use of this management measure. With encouragement from the National Public Lands Advisory Council, BLM also initiated an effort to review and improve existing guidance for designation and management of areas of critical environmental concern. The proposed changes will be finalized during Fiscal Year 1987 after review by BLM field offices and interested members of the public.

Automated Land and Mineral Record System

An anniversary portrait . . . when the Government Land Office merged with the Grazing Service in 1946 to form BLM, land records dating back to the 1700s came under BLM's administration. Integrating these records into a workable system through the Automated Land and Mineral Record System will provide a major tool for Public Land managers over BLM's next 40 years.

BLM maintains more than 250,000 cubic feet of records—1 billion documents that are the heart of processing cases such as oil and gas leases, rights-of-way, mining claims, and other authorizations to use the Public Lands. The Automated Land and Mineral Record System, to be implemented over the next few years, will automate much of this records work, significantly increasing efficiency.

The Automated Land and Mineral Record System is a cost-effective investment in implementing modern business practices in BLM. During Fiscal Year 1986, BLM completed and sent to Congress the feasibility study documenting the benefits—over $850 million through the system's life cycle, with the cost being approximately $100 million to implement an automated system rather than perpetuate the paper-based system.



BLM's Automated Lands and Minerals Record System is a top priority within the Department of the Interior.

An Automated Land and Mineral Record System display can combine a master title plat with topographic information.

In the last year, BLM also put into operation a prototype system that computerized a portion of the records work. It serves to clarify what BLM needs should be met by the Automated Land and Mineral Record System and what details must be included in the contracts that BLM will use to procure the necessary software and hardware from the private sector. The prototype also demonstrates the benefits of automating the manual system now in place in BLM.

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BLM has created an automated data base of land status in New Mexico and Arizona, and initiated similar data collection efforts in Montana, Idaho, and Nevada. Collection of status data requires several years. Utah started its status data collection effort in Fiscal Year 1985 and anticipates having a complete automated data base by the end of Fiscal Year 1988.

The Geographic Information System staff was combined with the Automated Land and Mineral Record System project staff during Fiscal Year 1986 so that the automation of resource data can be more closely integrated with the records data. A demonstration project has been initiated in the Farmington (New Mexico) Resource Area to show, in a field office setting, how BLM's automation of records and resource management information will improve the efficiency and quality of our decisionmaking processes.

A temporary exclosure is one method for improving riparian habitat upstream.

Riparian Area Management

An anniversary portrait . . . riparian areas are among the most resilient of ecosystems on the Public Lands. For example, Camp Creek in central Oregon was described in 1875 as a grassy meadow with a number of marshes. In 1903, the same area was described as a deep, wide gully, with the meadow and marshes converted to sagebrush and rabbitbrush. BLM began an effort to improve the riparian area in 1965, and within 20 years, the streambed had risen more than six feet, the number of vegetative species present increased more than 260 percent, and wildlife population levels expanded greatly.

Riparian areas—the "green zones" along the banks of rivers and streams and around springs, bogs, wet meadows, lakes and ponds—provide key benefits for Public Land resources. Healthy riparian systems act like a sponge by retaining water in streambanks and ground water aquifers, purify the water as it moves through vegetation, reduce sediment loads and enhance soil stability, moderate climatic extremes, and provide a diversity of plant species and habitat for fish and wildlife species.

BLM placed a great deal of emphasis during Fiscal Year 1986 on establishing riparian demonstration areas to evaluate and demonstrate various management practices. In July, BLM State Directors were asked to select areas for the project, with the goal of showing the different practices that are effective in improving riparian areas, the capability of riparian areas to respond to management efforts, and the variety of benefits and values that are associated with healthy and productive riparian areas. Many of these areas have been established with the cooperation of local Public Land users and other interested individuals.

Management techniques being studied include rest rotation grazing systems, willow plantings along streambanks, construction of log and rock check-dams, clearing of streambed debris, redistribution of livestock waters, installation of waterbars in roadways to control erosion into streams, restriction of off-road vehicle use, temporary grazing exclusions, and introduction of nature's engineer—the beaver—to build instream structures.

Monitoring of riparian areas is being accomplished through a variety of techniques, including photo plots, vegetation transects, aquatic insect sampling, and low level aerial photography.

BLM is encouraging the involvement of sportsmen's groups, Scouts, college students, conservation organizations, and Public Land users in all phases of riparian area management. Many volunteers help the agency construct projects, plant trees and shrubs, and assist in monitoring riparian areas.

BLM's Riparian Area Management Task Force, established during Fiscal Year 1985, continued its work during the past fiscal year. Emphasis was placed on classification, inventory, monitoring, and management treatment. In addition, four States conducted riparian workshops during the year.

Hazardous Materials Management

Hazardous materials management is a program that affects many other BLM programs, including lands; minerals; forestry; range; soil, water, and air; engineering; and resource protection. The program is based on the requirement for compliance with the Resource Conservation and Recovery Act, as amended, which regulates treatment, storage, and disposal of hazardous wastes; the Comprehensive Environmental Response Compensation and Liability Act, which regulates cleanup of spills and abandoned waste sites; and many other Federal and State laws that regulate the management of hazardous materials.

The goals of the program include:

- protection of the health and safety of the public, Federal land users, neighbors, and BLM employees, as well as protection of the environment and natural resources;
- compliance with applicable Federal and State laws, regulations, and orders, within the context of BLM's statutory mission as a Federal natural resource manager; and
- cleaning up past problems, controlling current

problems, and minimizing future problems of hazardous materials on Public Lands in a cost-effective manner.

During Fiscal Year 1986, program activities for hazardous materials management continued in all BLM State Offices. Field officials responded to and controlled 12 emergency situations on the Public Lands.

Other significant accomplishments included contracting for 12 preliminary assessments and 11 site investigations on Public Lands with the highest potential for hazardous waste contamination; continuing the inventory of sites suspected to be contaminated; providing safety training and material for field staff; working with the States to initiate further studies of appropriate sites; providing extensive policy, technical, and program assistance and support to other BLM program divisions on the hazardous materials aspects of their programs; and developing a strategy directed at the elimination of the backlog of sites requiring assessment and investigative analysis.

Issues yet to be resolved include the questions of the most effective means for cleanup of toxic or hazardous sites on Federal lands, improved communications and coordination, and funding. High-level meetings between the Environmental Protection Agency, BLM, Forest Service, and other Federal land-managing agencies would be pursued to seek ways of resolving these issues.

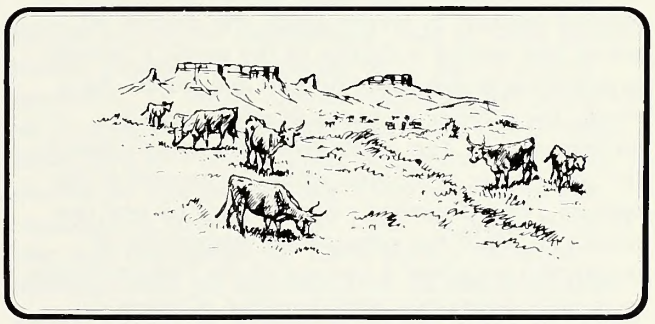
BLM/Forest Service Interchange

An anniversary portrait . . . the proposed BLM/Forest Service Interchange is the Federal Government's latest initiative in its continuing efforts to enhance public service, improve management efficiency, and save money—efforts that began with the establishment of the General Land Office in 1812.

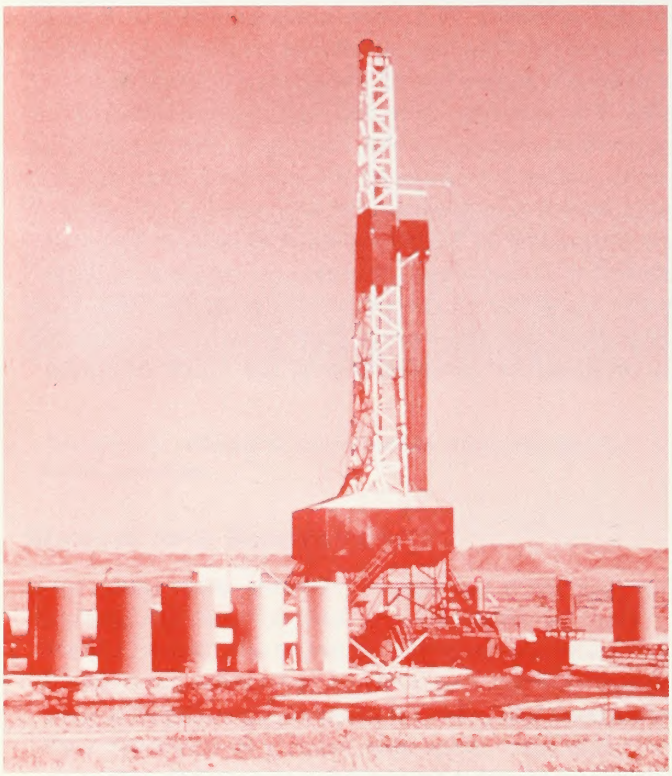
BLM and the Department of Agriculture's Forest Service have developed a proposal to transfer certain Federal lands and related management responsibilities between the two agencies. The proposal is the result of joint agency analysis that included land acreage, numbers of personnel, office locations, and program responsibilities.

BLM and Forest Service offices in about 35 towns where both agencies have offices would be consolidated, leaving one agency rather than two. Eventually, about 350 positions would be eliminated. By reducing duplication of jurisdictions, Interchange would improve prove service to the public and ensure more efficient management of public land resources. It would also reduce agency costs between $13 million and $15 million annually.

In February 1986, the legislative proposal to transfer approximately 25 million acres between BLM and the Forest Service was submitted to Congress, accompanied by a legislative environmental impact statement. The proposal reflected adjustments made in response to comments and concerns, and the environmental statement analyzed the potential impacts of the proposal and several alternatives. The proposal was introduced in both Houses of Congress and was referred to committees. Because no action was taken by the Congress on the proposal during the 99th Congress, BLM and the Forest Service intend to resubmit the proposal for consideration in the 100th Congress.



B. Energy and Minerals Programs



BLM received only 2,500 applications for permits to drill in 1986.

Oil and Gas Management

An anniversary portrait . . . BLM traces its oil and gas management authority to the Mineral Leasing Act of 1920, which opened public domain lands to mineral leasing. In recent years, the drop in oil prices has caused a decline in the public's interest in acquiring and holding oil and gas leases. As a result, the number of leases in effect and the amount of land now under lease are approximately the same as in 1979, and about 68 percent of the peak in 1982. To protect the Nation's oil and gas resources, BLM has allowed the suspension of production on about 1 percent of the Federal leases to prevent premature abandonment of leases on which production is currently unprofitable.

Oil and Gas Leasing

The Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act for Acquired Lands of 1947, as amended, give BLM responsibility for oil and gas leasing on about 600 million acres of Public Lands, national forests, and private lands where mineral rights have been retained by the Federal Government. Both competitive and noncompetitive oil and gas leasing are covered in these two Acts.

During Fiscal Year 1986, approximately 8,900 leases covering about 10 million acres of Federal land were issued, including 1,200 leases covering 350,000 acres by competitive bidding (bringing in approximately $26.6 million in bonus bids), 1,300 leases covering 2.1 million acres by over-the-counter leasing, and 6,400 leases covering 7.4 million acres under the simultaneous oil and gas leasing system.

Overall in 1986, onshore oil and gas leases generated approximately $800 million in bonus, rent, and royalty payments. At the end of Fiscal Year 1986, approximately 104,000 leases covering 95 million acres were in effect. This is a decline of 10 percent from the 1985 level of leasing activity. The number of lease terminations, relinquishments, and expirations during the year was greater than the number of new leases issued, so that by the end of Fiscal Year 1986 there were 23 percent fewer acres under lease than at the beginning of the year. During Fiscal Year 1986, BLM eliminated its backlog of pending lease assignments.

As in 1985, a market analysis prepared by BLM resulted in a decision not to hold a lease sale in the National Petroleum Reserve, Alaska, in 1986.

Oil and Gas Operations

The Federal Oil and Gas Royalty Management Act of 1982 was designed to assure proper and timely revenue accountability for production from onshore Federal and Indian oil and gas leases; prescribe onshore field operations requirements for inspections and enforcement actions; establish the basis for cooperation with States and Indian tribes for onshore Federal leases; and establish duties of lessees, operators and others involved in the production, storage, measurement and transportation or sale of oil and gas from Federal onshore and Indian leases. Proposed regulations for implementing the Act were published in January 1986; they covered site security, noncompliance, penalties for such noncompliance or nonabatement, and procedures for notice, review, or relief.

BLM and the Department of the Interior continue to emphasize that the necessary guidance and standards, against which inspections will be made and enforcement actions taken, are to be provided in Onshore Oil and Gas Orders. The highest priority orders to be developed and issued are those for site security and for drilling operations. Oil measurement and gas measurement orders will follow.

During Fiscal Year 1986, the national inspection goal was to inspect all high priority items at least once. That goal was achieved—without diminishing the importance of the other types of inspections, such as drilling and abandonment of operations.

During 1986, BLM also conducted a test of whether production accountability inspections should be conducted separately from routine detailed inspections. As a result of this test, BLM has demonstrated the soundness of its current approach to inspections.

Section 205 of the Federal Oil and Gas Royalty Management Act provides that the Secretary of the Interior may delegate all or part of his authority for inspection and investigations of oil and gas lease sites to State governments. BLM held meetings with State representatives to determine the level of State interest in the program and to determine the types of activities the States are interested in seeing delegated. The proposed regulations were developed during Fiscal Year 1986 for publication in October 1986.

Cooperative agreements pursuant to Section 202 of the Federal Oil and Gas Royalty Management Act are currently in effect with several Indian tribes. During Fiscal Year 1986, inspector trainees from the Navajo, Jicarilla-Apache, Southern Ute, Ute-Mountain-Ute, Arapaho, and Shoshone tribes attended BLM's training courses. BLM will continue to accept State and Indian trainees into BLM's inspector training program.

During Fiscal Year 1986, the overall decline in drilling and operations that was experienced nationally also extended to Federal and Indian lands. In contrast to the 4,000 applications for permits to drill processed in previous years, BLM received only 2,500 applications in 1986.

Public Lands contain 1.4 billion barrels of proven oil reserves.

The 1986 collapse of oil prices left a potentially large number of wells on Federal and Indian lands in questionable status with regard to the economic viability of continued production. At the Secretary's request, the Department undertook a review of how these resources could be protected. As the result of that review, BLM decided that production requirements on leases could be suspended if continued production was likely to result in the premature abandonment of a lease. This action has resulted in production suspensions on about 1 percent of Federal leases with a temporary loss of approximately 4,000 barrels of oil daily. Some of this production will be recaptured in future years.

During Fiscal Year 1986, BLM devoted considerable effort to implementing many of the recommendations developed by Keplinger Technology Consultants during the previous two years with respect to classification of Known Geologic Structures and drainage review. In addition, in 1986 BLM began to aggressively identify all wells that are potentially draining Federal resources. BLM also successfully completed a pilot test of the Potential Drainage Detection System, a computer-based system that identifies all potentially offending wells. The test of the system showed that BLM could automate its oil and gas field maps and use these maps for potential drainage detection.

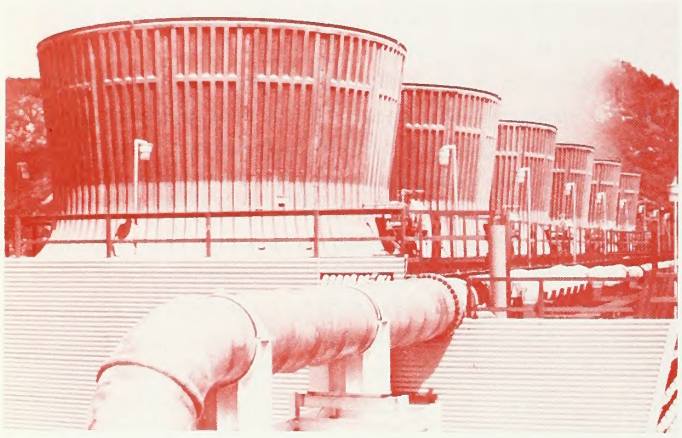
During Fiscal Year 1986, onshore oil and gas leases generated about $800 million in bonus, rent, and royalty payments to the Federal Government, 50 percent (or, in the case of Alaska, 90 percent) of which is returned to the States where production occurs. Another Interior agency, the Minerals Management Service, collects and distributes these receipts.

As of June 30, 1986, there were approximately 50,000 producible completions, that is, wells demonstrated capable of producing oil or gas in paying quantities. Of these, approximately 23,500 producible oil completions and 18,000 producible gas completions were on Federal lands, and about 5,000 producible oil completions and 3,500 producible gas completions were on Indian lands. In addition, BLM also was responsible for 7,600 service (injection/disposal) wells on approximately 22,000 producible leases (18,000 on Federal lands and 4,000 on Indian lands).

Geothermal Management

An anniversary portrait . . . the Geothermal Steam Act of 1970 provided BLM authority to issue leases on public, withdrawn, and acquired lands administered by the Departments of the Interior and Agriculture. By the end of Fiscal Year 1986, 1,212 geothermal leases covering 2 million acres were in effect.

A total of 15 leases covering 31,000 acres were leased competitively and 129 leases covering 211,000 acres were issued noncompetitively in Fiscal Year 1986. Approximately $5.7 million was received in bonuses and rents from 10 Western States. More than $16.5 million in royalties was received from California, Nevada, and Utah leases, with approximately 755 megawatts produced; about 98 percent of the production and royalties came from California leases.



Geothermal plants in California produced more than 700 megawatts of electricity in 1986. Photographer: Tony Staed

Coal Management

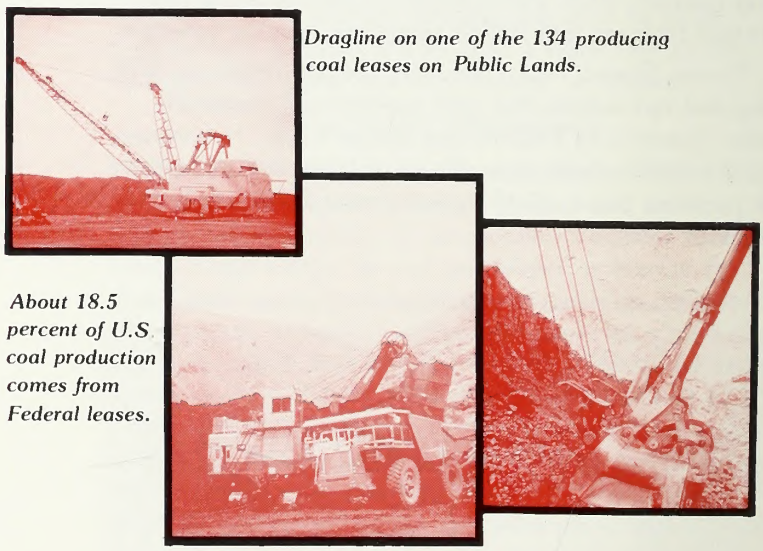
An anniversary portrait . . . under the Mineral Leasing Act of 1920, coal mining operations on Federal land were supervised by the Bureau of Mines until this function was transferred to the Geological Survey in 1925, then transferred again to the new Minerals Management Service in 1982, and then in turn passed on to BLM in 1982 under Secretarial Order No. 3087. Coal production from Federal lands has increased from 7.4 million tons in 1970 to 163.9 million tons in 1986; as a result, over $50 million will be returned to the States in which production occurred in 1986.

Coal Leasing

The Federal Government owns about one-third of the Nation's coal. Approximately 75.6 million acres of coal are owned and administered by the Federal Government, principally in the Western States. These western Federal coal lands contain as much as 60 percent of the total western reserves. The Federal Government also indirectly affects the use of at least an additional 20 percent of the coal in the West. Most of these Federal coal reserves are concentrated in five western Federal coal production regions located in Colorado, Montana, New Mexico, North Dakota, Utah, and Wyoming.

BLM serves as the focal point for the Department of the Interior's coal leasing program and is responsible for assuring coordination with State and local governments, industry, conservation groups, and other agencies concerned with the management of Federal coal. The Mineral Leasing Act of 1920, the Federal Coal Leasing Amendments Act of 1976, the Federal Land Policy and Management Act of 1976, and the Surface Mining Control and Reclamation Act of 1977 provide the statutory basis for Federal coal leasing.

The major achievement during Fiscal Year 1986 was the announcement of a framework to resume the Federal coal leasing program following a two-year suspension of regional coal sales. The suspension had enabled the Department of the Interior to complete a thorough and detailed analysis of the program. Between early 1984 and early 1986, Federal coal leasing was restricted to emergency leasing and to processing coal preference right lease applications, exploration licenses, congressionally authorized coal lease and fee coal exchanges. This restriction allowed BLM to study and analyze the recommendations of two groups directed by Congress to study the fair market value and environmental aspects of the coal leasing program.



Dragline on one of the 134 producing coal leases on Public Lands.

About 18.5 percent of U.S. coal production comes from Federal leases.

Department officials continued discussions with several conservation groups concerning the procedures for processing coal preference right lease applications. The discussions centered around issues related to compliance with relevant environmental statutes and with the Department's procedures for determining whether an applicant has discovered coal in commercial quantities. Agreement was expected to be reached in early 1987, and would be used by BLM and the

Department to develop rulemaking for improved environmental analysis and public participation for processing the 111 remaining coal preference right lease applications.

During the year, six Federal coal lease tracts were sold; they covered 5,620 acres and contained approximately 33.9 million tons of recoverable reserves. Lease sales brought $2.45 million in bonus bids. Seven new leases containing 15,064 acres and approximately 124.07 million tons of recoverable reserves were issued.

At the end of Fiscal Year 1986, there were 596 outstanding Federal coal leases covering 882,900 acres of Federal lands. In addition to these leases, 6 prospecting permits, 4 mining licenses, 37 exploration licenses, 1 use permit, and 111 preference right lease applications were administered by BLM.

Coal Operations

BLM is responsible for ensuring that coal exploration and mining operations are conducted in accordance with the Mineral Leasing Act of 1920, as amended, the Mineral Leasing Act for Acquired Lands of 1947, related statutes, and implementing regulations in Title 43 of the Code of Federal Regulations Part 3480. Coal program requirements of the mineral leasing laws, including resource recovery, diligence, and readjustments were significantly revised by the Federal Coal Leasing Amendments Act of 1976. Regulations published in 1979, 1982, and 1986 further clarify BLM's responsibilities for coal operations.

In Fiscal Year 1986, BLM administered 596 existing Federal coal leases containing an estimated 16.5 billion tons of recoverable reserves. There were 134 producing Federal coal leases. Coal production from Federal lands in Fiscal Year 1986 was approximately 163.9 million tons, about 18.5 percent of total United States production (approximately 887 million tons). Federal royalties paid through production verified by BLM and collected by the Department of the Interior totaled $101.1 million.

Fiscal Year 1986 marked the first full year in which the BLM had a formal national policy and implementing guidelines for solid mineral inspection and enforcement and production verification. The policy and guidelines ensure nationally uniform procedures and their consistent nationwide application and provide clear guidance to lessees and operators on their production and royalty related responsibilities. Accordingly, each BLM field office with coal responsibilities prepared office plans which formed the foundation for their implementation of the inspection and enforcement and production verification guidelines.

Another major accomplishment was the implementation of the Solid Leasable Minerals System, a computerized data base that was developed to track all aspects of lease operations. All producing and nonproducing leases, licenses and permits are continually monitored through this system to ensure compliance with regulations and lease-term requirements and to ensure timely readjustments of the lease terms. Procedures that were implemented in 1984 were continued in Fiscal Year 1986 to ensure that Federal coal leases are readjusted in a timely manner to Federal Coal Leasing Amendment Act terms.

Also in 1986, BLM developed and issued guidelines to implement Section 7 of the Mineral Leasing Act of 1920, which required each Federal coal lease to be in production in commercial quantities before the end of the 10th anniversary of the lease (diligent development) and annually thereafter (continued operation) or pay advance royalty in lieu of continued operation.

BLM began implementing guidelines for Logical Mining Units in Fiscal Year 1986 and also, in late 1986, issued regulations for implementing Section 3 of the Federal Coal Leasing Amendments Act of 1976. Section 3 guidelines relate to the implementation of Section 2(a)(2)(A) of the Mineral Leasing Act, which prohibits the issuance of any onshore Federal mineral lease to any entity that holds, and has held for 10 years, a Federal coal lease that is not producing in commercial quantities. The formation of a Logical Mining Unit could establish for a lessee or operator a mechanism to satisfy Section 7 of the Mineral Leasing Act and Section 3 of the Federal Coal Leasing Amendments Act by allowing production on any contiguous lease or fee land within the Logical Mining Unit to be counted as production from other Federal leases within the same unit.

In addition to these regulatory procedures, BLM is responsible for Federal coal lease performance bonds, which provide a means of security to the Federal Government if a lessee or operator fails to make royalty or rental payments on a timely basis. Uniform guidance was issued on bonding procedures.

Oil Shale Management

An anniversary portrait . . . in 1971 the Prototype Oil Shale Leasing Program was initiated, and in 1974 BLM issued four oil shale leases, two in Colorado and two in Utah. By 1986, development activity on the existing prototype lease tracts was at a standstill.

The Mineral Lands Leasing Act of 1920 gave the Secretary of the Interior the authority to lease oil shale on Federal lands. BLM has the Federal management responsibility for 80 percent of the oil shale resource that is concentrated in the Green River formation in Colorado, Utah, and Wyoming. The reserves in this 25,000 square mile formation are esti-

mated to contain nearly 2 trillion barrels of shale oil. Approximately 731 billion barrels of oil could be recovered with current technology. However, given present technology, the cost of extracting the oil makes it noncompetitive against conventional energy sources.

During Fiscal Year 1986, the U.S. Synthetic Fuels Corporation was abolished, and proposed regulations for a permanent oil shale leasing program were canceled. Tract C-a in Colorado is under formal suspension. BLM is currently preparing an environmental impact statement on the lessee's application for another lease tract which would primarily be used for solid waste disposal. The lessee of prototype tract C-b in Colorado has expressed a desire for a suspension and modification of some lease terms. BLM is currently reviewing this application. The lessee of tract C-b paid over $1.3 million in advance royalties in 1986. Unitized (Utah) oil shale tracts U-a and U-b were relinquished in September 1986. The site and existing facilities are now being managed by BLM.

The collection of oil shale documents and reference material at BLM's Grand Junction, Colorado, office has been transferred to the library at BLM's Denver Service Center, from which it may be borrowed through the traditional loan process. A bibliography of the entire collection will be prepared and made available to interested parties.

Tar Sand Management

An anniversary portrait . . . since passage of the Combined Hydrocarbon Leasing Act in 1981, 12 oil and gas leases covering over 25,000 acres have been converted to combined hydrocarbon leases, and there are 26 oil and gas conversion applications pending approval action within Special Tar Sand Areas.

About 70 percent of the Nation's tar sand deposits are estimated to be in Utah, primarily on Federal lands. Under the provisions of the Combined Hydrocarbon Leasing Act of 1981, holders of preexisting oil and gas leases and valid mining claims in Special Tar Sands Areas, located in Utah, had a limited opportunity (ending November 16, 1983) to obtain the tar sand rights thereunder noncompetitively by applying to convert their existing oil and gas leases or valid mining claims to combined hydrocarbon leases. The Act also provides for a competitive leasing program. The Act requires that all conversion applications demonstrate reasonable protection of the environment.

The final rulemaking governing Paying Quantities and Diligent Development of Combined Hydrocarbon Leases was issued effective May 22, 1986. Due to low demand and limited commercial technology, tar sand development on Public Lands was minimal during Fiscal Year 1986.

A continuous underground miner extracts trona, a source of sodium compounds.

Nonenergy Minerals Management

An anniversary portrait . . . exploration for locatable metallic minerals on public domain lands dates back to the Mining Act of 1866, the Placer Mining Act of 1870, and the General Mining Law of 1872. Their exploration and leasing on Public Lands was authorized by the Reorganization Plan No. 3 of 1946. The Mineral Leasing Act of 1920, as amended, and the Acquired Lands Leasing Act of 1947, as amended, authorized the leasing of Public Lands for private extraction of the leasable minerals as well as oil, gas, and coal. The Act of August 13, 1954, amended both the general mining laws and the leasing laws to permit multiple development of both hardrock and leasable minerals on the same tracts of land.

Nonenergy leasable minerals include phosphate, potassium and sodium minerals, sulphur, asphalt, and gilsonite. The nonenergy hardrock or locatable minerals are mostly metallic minerals, such as gold, silver, lead, zinc, copper, and uranium.

The extensive revision of Title 43 of the Code of Federal Regulations, Part 3500 became effective as of May 22, 1986. The regulations govern nonenergy minerals and were issued in a mineral-specific format

to facilitate their use by the interested public, the mining industry, and Federal land managers. These regulations will permit the more rapid approval and issuance of prospecting permits and leases. These regulations also cover provisions for mining claim, preference right, and other types of mineral leases in the White Mountains National Recreation Area in Alaska.

In Fiscal Year 1986, BLM issued 28 sulphur prospecting permits, 9 gold prospecting permits, and 1 uranium prospecting permit. Total nonenergy mineral leases administered by BLM as of September 30, 1986 were as follows: 149 phosphate, 103 sodium, 165 potassium, 1 asphalt, 12 gilsonite, 2 gold, and 2 uranium. No new leases were issued during 1986.

Mineral Materials Management

An anniversary portrait . . . BLM's mineral materials program, sometimes referred to as the "salable minerals program," began with the passage of the Materials Act of July 31, 1947. In 1955 Congress amended this Act by specifying that common varieties of previously locatable minerals, such as sand and gravel and stone, were to be disposed of under the provisions of the 1947 Act. Since that time BLM has disposed of mineral materials either by sale to the general public or by free use permit to qualified government or nonprofit entities as provided in the Act.

In Fiscal Year 1986, BLM issued approximately 2,900 sales and free use permits, representing materials valued at approximately $20 million. For many western communities, the Public Lands continue to be the only source for mineral materials, which are used in energy and mineral development, construction and maintenance of transportation systems, and the expansion of communities and industries.

Mining Law Administration

An anniversary portrait . . . the Mining Law of 1872, as amended many times in its 114-year history, serves as the statutory basis for the disposition of "locatable minerals" from the public domain. In addition, minerals that are now disposed of via the Mineral Leasing Act of 1920 (such as oil shale) may be held, worked, and patented under the mining laws if claim location and discovery of valuable deposits preceded 1920.

Federally owned locatable minerals include valuable deposits of precious metals, base metals, industrial minerals (such as cement-grade limestone and bentonite) and uncommon varieties of building stone and other mineral materials.

In Fiscal Year 1986, BLM accepted 112,858 mining claims and sites for initial recordation under Section 314 of FLPMA. Annual filings of assessment work affidavits (or notices of intent to hold) served to hold 724,907 mining claims of record. Failure to annually file such documents is conclusive evidence of abandonment of the mining claim.

Under the surface management regulations administered by BLM, operators proposing to disturb the surface of Public Land filed approximately 426 plans of operation (generally for disturbances of greater than 5 acres) and 1,966 notices (for lesser impacts) in Fiscal Year 1986. Reviews of the proposed activities serve to ensure that no unnecessary or undue degradation of the Public Land is likely to occur.

BLM continued in Fiscal Year 1986 to emphasize its responsibility to promptly adjudicate mineral patent applications, reject or contest invalid mining claims, and issue patent to those claimants demonstrating a discovery of a valuable mineral deposit. As a result, 7,626 acres of mineral land passed into private ownership as patented lode or placer mining claims. Under the millsite provisions of the mining laws, 185 acres of nonmineral land were patented for uses reasonably incident to mining and milling purposes.

Gold mining operation in Montana.

C. Land Programs

Lands

An anniversary portrait . . . the Federal Government's lands program can be traced back to the first patent issued for a tract of public domain (March 4, 1788) by the Office of Commissioners, Board of Treasury, New York City. The General Land Office was established in 1812 to manage the public domain. On July 16, 1946, BLM became the successor to both the General Land Office and the Grazing Service (founded in 1934).

Over the years, Congress has enacted numerous public land laws, including the Homestead Act of May 20, 1862, the Desert Land Act of 1877, various sale and disposal laws (1880 through 1926), the Recreation and Public Purposes Act of 1926, the Taylor Grazing Act of 1934, and the Small Tract Act of 1938. With the passage of FLPMA in 1976, 331 old laws or parts of laws were repealed, including all homestead laws, the Small Tract Act, and several sale and use authorities. In turn, FLPMA created new and more comprehensive authorities allowing the Secretary of the Interior to convey, trade, and authorize use of the Public Lands.

Photographer: Diane Drobka

During Fiscal Year 1986, BLM's lands program focused on:

- responding to State and local government requests for acquisition or use of Public Land for community expansion, recreation, and public-purpose activities;
- modifying land exchange processing to eliminate unnecessary requirements and streamline procedures;
- accelerating programs of State and private land exchanges to acquire important public values and access and to foster improved management of both Federal and non-Federal lands;
- transferring Federal land to States to satisfy indemnity (in-lieu) land entitlements that remained outstanding;
- reducing the backlog of land acquisition and use applications; and
- resolving cases of unauthorized use of the Public Lands.

The Recreation and Public Purposes Act authorizes the Federal Government to convey lands at no cost to State and local governments for public recreation purposes and to lease or sell lands for other public purposes at less than fair market value. In Fiscal Year 1986, BLM processed 138 applications under this Act, involving 13,598 acres of Public Land. Applications continue to be filed at a rate of approximately 80 per year.

Land exchanges (trading Public Land for State or private land) provide opportunities to acquire lands with high public values, simplify ownership patterns, improve respective management programs, and meet both public and private needs. Consistent with the Administration's vision of Federalism—the return of authority and discretion to the local level of government—BLM's land exchange program helps State and local communities better manage their own lands for the betterment of their citizens. The land exchanges increase local control of resources and lands needed in order to be responsive to the needs of the people to support their own growth and well-being.

The amount of acreage conveyed through exchanges has climbed steadily from almost 70,600 acres in 1981 to 341,204 acres in 1985. In Fiscal Year 1986, 55 exchanges conveyed 301,770 acres of Public Land to State and private interests in return for 348,398 acres of their land.

As Western States were admitted to the Union, they were granted Federal land for the support of common schools. In many cases, however, land due to the States had been preempted by settlement, mining claims, and Federal programs. Accordingly, Congress authorized the States indemnity (or in-lieu) selections for the preempted lands. Conveyance of such in-lieu land to the Western States has been accelerated rapidly in recent years: between 1977 and 1980, only 3,859 acres were transferred; from 1981 through 1985, a total of 359,678 acres were conveyed. With much of the work accomplished, 1986 transfers totaled only 6,609 acres. About 170,000 acres of the original, multi-million acre entitlement remain. BLM

will process the balance as States present their applications.

Processing of Desert Land Act applications constituted a major workload in Idaho and Nevada during Fiscal Year 1986. BLM processed 509 applications during the year, reducing to 800 a backlog that once involved more than 6,000 cases.

BLM continued to make selected Public Lands available for sale to allow for community expansion and other purposes. Most of the land sold consisted of small, isolated parcels. Tracts are carefully selected through BLM's land use planning process to ensure that sale is appropriate. During Fiscal Year 1986, 6,961 acres of Public Land were sold for a total of more than $11.5 million. Of this total, 705 acres in the Las Vegas, Nevada, area were sold under the provisions of the Santini-Burton Act for $9.8 million.

Withdrawals and Withdrawal Review

Prior to the passage of FLPMA, a very large and varied body of laws going back hundreds of years authorized the withdrawal or classification of Public Lands. In 1976, FLPMA, under Section 204(l), required a comprehensive 15-year review of certain withdrawals of Federal lands in the 11 Western States, excluding Alaska. Between late 1980 and mid-1985, BLM reviewed over 30 million acres of Public Land and submitted 112 withdrawal cases to the Office of Management and Budget, recommending termination of these outdated withdrawals that covered nearly 14 million acres.

During Fiscal Year 1986, the Secretary approved 11 Public Land Orders: eight withdrawals encompassing 6,646 acres for administrative, historic, or recreation sites or wildlife refuges; two revocations, one under Section 204(a) of FLPMA and one under Section 22(h)(4) of the Alaska Native Claims Settlement Act affecting 46,183 acres in Alaska to permit selection by the State or conveyance to the Natives; and one modification of an existing withdrawal to transfer administrative jurisdiction of a prison.

On July 15, 1985, the National Wildlife Federation filed suit in the U.S. District Court challenging the withdrawal and classification processes and actions taken by BLM since January 1, 1981, under Sections 202(d), 204(a), and 204(l) of FLPMA. A preliminary injunction was issued February 10, 1986, specifically prohibiting the Secretary of the Interior from modifying, terminating, or revoking, in full or in part, under FLPMA, any withdrawal or classification that was in effect on January 1, 1981; or taking any action inconsistent with the specific restrictions of any withdrawal or classification in effect on January 1, 1981.

The injunction halted BLM's withdrawal review program to identify outdated withdrawals and return such lands to multiple use management. Many such withdrawals and classifications were placed on Public Lands prior to passage of FLPMA in 1976. Some of the withdrawals date back to the 1880s and 1890s, and many of the lands that were under review were withdrawn for purposes that did not occur or that are no longer occurring.

The injunction also inhibited mineral leasing activities on Public Lands and slowed BLM's program to streamline its land management through exchange and sale of lands uneconomic to manage or lands needed by local or State governments for better management of their own programs. The suspension of many lands activities has significantly impacted many third parties, including individual citizens, local communities, and State governments throughout the West. Nationwide, many pending land exchanges and land sales were suspended, including more than 250 Desert Land Entries, over 500 sales and exchanges, nearly 1,000 mineral or Recreation and Public Purpose Act leasing actions, and recordation of 7,300 mining claims.

Alaska Lands

An anniversary portrait . . . since 1958, BLM has transferred title to approximately 80 million acres to the State of Alaska under the Alaska Statehood Act and title to over 34.5 million acres to Alaska Native corporations under the Alaska Native Claims Settlement Act.

On July 7, 1958, Public Law 85-508 provided for the admission of the State of Alaska into the Union. This Act provided the State with the opportunity to acquire over 104 million acres of public land. On December 18, 1971, the Alaska Native Claims Settlement Act established Native corporations that could select approximately 44 million acres from the public domain. FLPMA, the Alaska National Interest Lands Conservation Act (1980), and the Alaska Railroad Transfer Act (1982) also affect management of Alaska lands.

In 1958 BLM administered nearly 300 million acres in Alaska, an area larger than the States of California and Texas combined. In the 28 years since, land has been transferred to the State, Natives, and other Federal agencies, so that today approximately 94.5 million acres remain in the public domain. When the title transfer program is completed, BLM will manage approximately 64 million acres throughout Alaska, and while retaining responsibility for some functions (such as firefighting) on approximately 150 million acres.

During Fiscal Year 1986, BLM patented more than 2 million acres to the State and more than 1.5 million acres to Alaska Native corporations. All approved lands required boundary staking, survey, and preparation and approval of the survey plat before the patents were issued. In addition, BLM processed over 800 Native allotment parcels up to the request for survey.

FLPMA repealed Federal settlement laws except for Alaska, where settlement was allowed to continue until October 21, 1986. There are presently 551 active applications on file for land in the Slana area; seven patents have been issued. At Minchumina, there are 88 active applications on file; six patents have been issued.

Management direction was established for BLM's Steese National Conservation Area and White Mountains National Recreation Area through completion of resource management plans for the two areas. Planning for the Central Yukon area was also completed, and work is progressing on the Utility Corridor Resource Management Plan.

BLM currently manages some 94.5 million acres in Alaska. Photographer: Bob Anderson

Power transmission lines are only one of the many kinds of rights-of-way issued by BLM each year.

Rights-of-Way

An anniversary portrait . . . a Federal right-of-way program has been in existence for more than 175 years. Rights-of-way with associated grants of land were authorized beginning in 1802 with the Ohio enabling legislation, and similar legislation for other states was passed in the years following. Many subsequent laws providing for rights-of-way on Public Lands were repealed and superseded by FLPMA.

Rights-of-way are used to authorize improvements such as roads, railroads, power transmission and telephone lines, other communication facilities, canals, oil, gas, and other types of pipelines; and most other types of facilities that provide for the transportation of products. The majority of rights-of-way are authorized under FLPMA and the Mineral Leasing Act of 1920.

During Fiscal Year 1986, BLM authorized three major rights-of-way and 2,154 smaller rights-of-way for various purposes under the authority of FLPMA. BLM also authorized two rights-of-way for major pipelines and 901 rights-of-way for smaller pipelines and related facilities under the authority of the Mineral Leasing Act of 1920.

Draft regulations were issued in Fiscal Year 1986 that provide for both cost recovery and the collection of right-of-way rentals, as required by Section 504(g) of FLPMA. Instructions were also issued to field offices, including handbooks providing terms and conditions for use in right-of-way grants; these will provide for more uniformity in the processing and issuing of right-of-way grants.

Twelve cases involving cost recovery litigation were resolved in Fiscal Year 1986. These were cases which had been appealed to the 10th Circuit Court of Appeals concerning costs charged applicants for processing right-of-way applications filed under FLPMA.

Acquisition

An anniversary portrait . . . Oregon BLM developed an acquisition program in the early 1950s to accommodate their competitive timber sale program and developed the first Acquisition Handbook in 1959. By the mid-1960s, a BLM acquisition program had been established. Within the past 18 years, approximately 105 deeds and 170 scenic easements have been acquired on the Rogue, Missouri and Rio Grande Wild and Scenic Rivers and about 2,000 access road easements have been acquired, with a condemnation rate of about 2 percent.

Congress provided specifically for the acquisition of lands for the King Range National Conservation Area in California. Photographer: Tony Staed

FLPMA provides the primary legislative authority for BLM's acquisition program. Under FLPMA, the Secretary of the Interior is authorized to acquire lands through purchase, exchange, donation, or when necessary through eminent domain. In addition, Congress has occasionally passed special legislation providing for acquisition, such as the Wild and Scenic Rivers Act and the National Trails System Act, both passed in 1968, and the King Range National Conservation Area Act of 1970.

During Fiscal Year 1986, BLM acquired 179 easements for legal access, administrative use, and rights of the public. The Trust for Public Lands acquired a parcel of land located in the Steens Mountains of Oregon, and BLM acquired it from them with Land and Water Conservation funding in the amount of $644,000. The Steens Mountains parcel is considered highly valuable for recreational purposes and some portions are designated as areas of critical environmental concern.

The Acquisition Handbook was completed and distributed to the field offices in Fiscal Year 1986. This handbook consists of three parts: Acquisition Processing, Condemnation, and Disposal of Unneeded Easements.

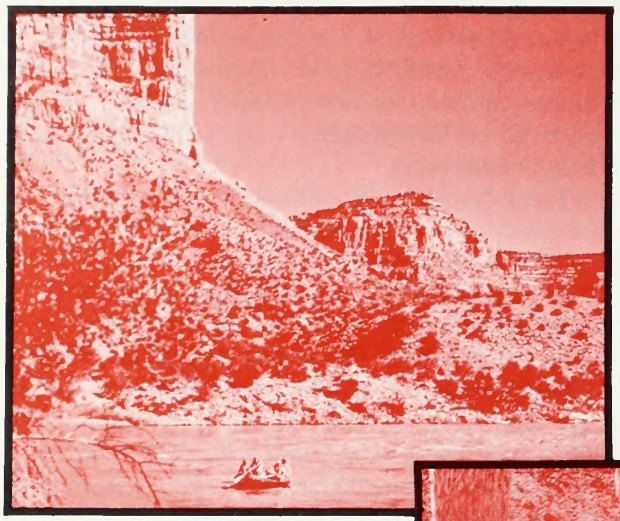
An Access Task Force was formed in Fiscal Year 1986 to formulate methods to resolve access problems and identify opportunities for acquiring legal access with other than appropriated funds. The group met twice in Denver and arrived at recommendations for the State Directors' consideration.

Recreation Management

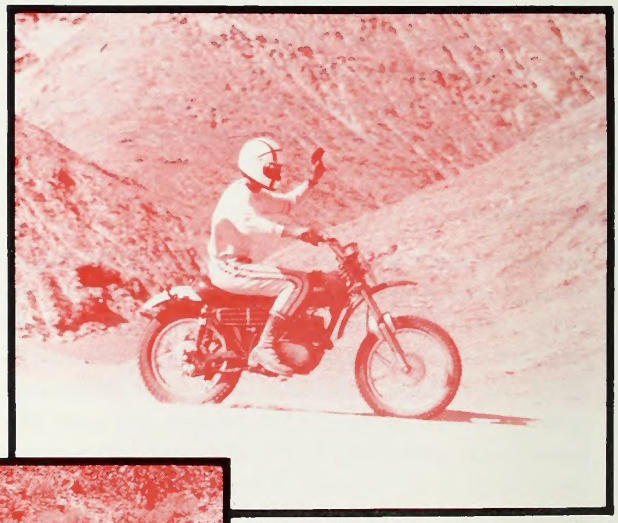
An anniversary portrait . . . hunting and fishing have occurred on public domain lands for hundreds of years. Other kinds of recreational use began to accelerate in the late 1940s and 1950s as war surplus "jeeps" provided a safe means to get into the back country. As a result, BLM initiated management programs to control the burgeoning recreational activities like sightseeing, picnicking, camping, hiking, hunting, fishing, and driving for pleasure.

The right to use Public Lands for recreation was recognized in the Taylor Grazing Act of 1935. However, it was not until the Classification and Multiple Use Act of 1964 that recreation was recognized as a major use of Public Lands. In 1976 FLPMA authorized BLM to manage recreation use on the Public Lands as an equal partner with other uses. Providing recreation as part of multiple use management pays the greatest return to the public because the benefits produced by other resources are not foregone. As contrasted with single use recreation areas, BLM's multiple use management of recreation allows benefits from resources such as minerals, timber, and forage to be achieved while recreation also continues.

In Fiscal Year 1986, Public Lands accommodated more than 54.2 million recreation visits, an increase of 5 percent over Fiscal Year 1985, and over 284.1 million visitor hours, a 16 percent increase. Management of this use was accomplished by on-the-ground presence of rangers and other visitor service personnel, by controlling use through off-road vehicle designations and a permitting system, and through heavy reliance on volunteers and cooperative management. During Fiscal Year 1986, 187,200 volunteer hours were contributed with a savings to the Federal Government of over $1.1 million.



River rafting in Desolation Canyon, Utoh.



The California Desert has room for different kinds of recreation.

In addition, the Long-Term Visitor Areas in Arizona were operated almost entirely with volunteer help. More than $40,000 in fees were collected at these areas, and over 40,000 hours of volunteer time were contributed. These areas were established in Arizona and California to meet the need for long-term winter camping areas. For a $25 permit, people with campers and trailers are allowed to camp in the Long Term Visitor Areas for an eight-month period. The areas are mostly undeveloped, with only minimal facilities provided.

Overall during Fiscal Year 1986, 54,738 camping and day-use permits were issued, a 30 percent increase over Fiscal Year 1985. An additional 8,074 special recreation permits were issued, a 13 percent increase over the previous year. More than $1 million in fees were collected. This represents a 100 percent increase in camping and day-use fees collected, and a 44 percent increase in fees collected in the special recreation permit program.

Through Fiscal Year 1986, approximately 103.9 million acres of Public Land were open to off-road vehicle use (subject to special operating requirements), approximately 26.3 million acres were designated for limited off-road vehicle use, and approximately 2.1 million acres were closed to off-road vehicle use.

Other cost-saving and time-saving measures implemented in Fiscal Year 1986 included a "one-stop shopping service" for outfitter and guide permits in Colorado, New Mexico, and Arizona. Outfitters and guides seeking permits to use BLM and Forest Service lands can now get these permits through either agency. Field offices in Wyoming and New Mexico signed and implemented 12 cooperative management agreements with user groups to manage cave resources. In Montana, BLM signed cooperative

management agreements with private and State agencies to open up hunting land. In northern Utah, several service organizations worked with local BLM officials to protect and interpret a section of the original transcontinental railroad grade. In California, BLM and the State worked together to improve off-road vehicle opportunities and reduce impacts from off-road vehicle use. BLM currently has some 35 separate projects under way that are funded through State programs. Another 14 projects are being planned.

BLM currently manages:

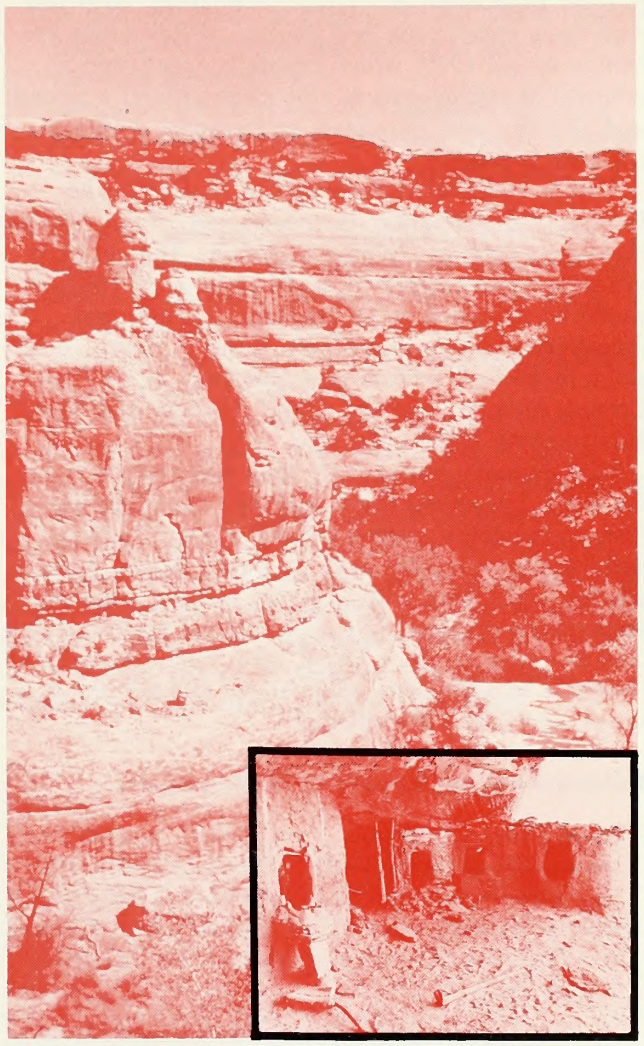
- 1,378 miles of National Wild, Scenic and Recreational Rivers (15 rivers)
- 4,000 miles of floatable rivers
- 1,556 miles of National Recreation, Scenic, and Historic Trails (21 trails)
- 3,000 miles of trails
- 65,000 miles of roads suitable for recreational travel by normal vehicles and thousands of miles of primitive roads used for back-country exploring, hunting, fishing, etc.
- 470 developed and semideveloped recreation sites, including 5,900 camp units and 2,364 picnic units
- 348 boating access points
- 7 visitor centers
- 37 concession operations
- 85,000 miles of fishing streams
- 4,170,000 acres of lakes and reservoirs
- 237 special recreation management areas

Comprehensive management plans have been completed for the Iditarod National Historic Trail in Alaska and segments of the Oregon and Mormon Pioneer National Historic Trails in Idaho and Wyoming. A management plan was begun for the San Pedro Riparian Area in Arizona, which was acquired through an exchange in 1985 for its numerous multiple use values including major recreational and cultural values.

Cultural Resource Management

An anniversary portrait. . . the cultural resource management program is a relative newcomer to BLM, tracing its origins to the National Historic Preservation Act (1966). The program's development accelerated after FLPMA established a basis for managing Public Land cultural resources in 1976. To date, more than 125,000 archaeological and historic properties have been recorded on Public Lands, with about 10,000 new entries being added each year.

Cultural resoures are protected by numerous Federal statutes, including FLPMA, the National Historic Preservation Act of 1966, and the Archaeological Resources Protection Act of 1979. These laws establish the primary objectives of BLM's cultural resource program, which are the identification of the physical evidence of approximately 20,000 years of human occupation in the western hemisphere, the evaluation of the relative importance of these physical manifestations, and the determination of what management actions are appropriate for protecting the significant aspects of the cultural environment.



BLM manages thousands of cultural sites, such as this area in the Moab, Utah District, which was occupied two thousand years ago by Anasazi Indians.

About 7 million acres of Public Land have been intensively inventoried for cultural resources. Presently, 1,258 properties are considered to have nationally significant values, and 370 have been included in the National Register of Historic Places. In addition to numerous individual site stabilization and protection

projects carried out in the past year, over 1.5 million acres of land, having some 78,000 cultural properties, were under protective patrol and surveillance.

In Fiscal Year 1986, BLM placed greater emphasis on working with schools, civic groups, and archaeological societies to increase public awareness and understanding about cultural resources, the need to leave them untouched on the Public Lands, and the dangers of vandalism. BLM is actively seeking public cooperation in reporting thefts and vandalism and in refusing to buy stolen artifacts. Where education fails to deter pothunting and reduce vandalism, BLM will vigorously enforce the Archaeological Resources Protection Act of 1979, which prohibits excavation or removal of archaeological resources without a permit, and also the sale, purchase, or transport of illegally removed remains.

Also in 1986, BLM continued to work with the Bureau of Reclamation on construction of the Anasazi Heritage Center at Dolores, Colorado. The center is expected to be completed in the summer of 1987. It would be managed as an interpretive center and repository for cultural artifacts of the Northern Anasazis, a prehistoric culture that flourished in the Four-Corners area of Colorado, Utah, Arizona, and New Mexico some 2,000 years ago.

BLM annually issues more than 400 permits to individuals, consulting firms, and educational institutions to complete various cultural resource surveys and impact mitigation work on Public Lands, generally for compliance with statutory planning and protection requirements. The decentralized permit system, only in operation since Fiscal Year 1985, allows State Directors to administer applications and permits in a timely and responsive manner.

Paleontological Resource Management

An anniversary portrait...since 1931, scientific excavation of Public Lands near Cleveland, Utah, has unearthed more than 10,000 bones from at least 100 different animals that lived about 150 million years ago during the middle of the age of dinosaurs.

Paleontological resources are administered under a variety of legislative mandates such as FLPMA, the Surface Mining Control and Reclamation Act of 1977, and the National Environmental Policy Act of 1969. These laws require the identification, management, and protection of scientific values and the preservation of important aspects of our Nation's natural heritage. As a result of a Secretarial Order issued in September 1984, BLM was delegated authority to issue and administer paleontological collecting permits on Public Lands.

BLM's paleontological resources management program provides for both scientific research and public educational use of fossils on Public Lands. In Fiscal Year 1986, 56 permits for paleontological scientific collection were issued. Also a new paleontological public interpretive trail was established in southwestern Colorado.

Wilderness Resource Review and Management

An anniversary portrait...since 1976 BLM has designated 23 wilderness areas, located in eight states and totalling approximately 370,000 acres.

FLPMA provides a legislative mandate for BLM to study the Public Lands for wilderness characteristics and recommend designation of such lands as wilderness areas to the President and Congress. Designated wilderness areas are managed under the authority of the Wilderness Act of 1964.

BLM completed its inventory in the western states in November 1980. At the present time, BLM has 860 wilderness study areas containing approximately 25 million acres. Approximately 2 million acres in Alaska are included in a congressionally mandated wilderness study under the provisions of the Alaska National Interest Lands Conservation Act, with the study results and recommendations to be sent to Congress by December 1988.

By the end of Fiscal Year 1986, BLM had completed 85 percent of the field study work in wilderness study areas, with remaining field activities scheduled for Fiscal Year 1987. BLM completed seven final environmental impact statements covering wilderness study areas during Fiscal Year 1986. At the present time, based on field study work, BLM has preliminarily identified that approximately 10 million acres are suitable for designation as wilderness as part of the National Wilderness Preservation System. Mineral survey work in these areas is under way, and BLM is working toward completing the remaining final environmental impact statements.

No new BLM wilderness areas were designated by Congress in Fiscal Year 1986. Congress did not act on the package of 30 areas submitted by the President in April 1985, and no new BLM wilderness packages were submitted in 1986.

During Fiscal Year 1986, BLM continued to emphasize strict enforcement and compliance with the mandates of FLPMA for all activities occurring in wilderness study areas to protect their suitability for wilderness designation. A number of special public

outreach initiatives were implemented to better inform the public and users of the Public Lands what they may and may not do in these areas. Greater use of volunteers and conservation groups was initiated to augment the resources of BLM to assist in monitoring activities in wilderness study areas. In Fiscal Year 1986, BLM also stepped up its training programs to increase the capabilities of BLM personnel to better manage activities in wilderness study areas.

During the year BLM also continued to develop more effective management procedures for its 23 designated wilderness areas, including procedures concerning aircraft flights, guidelines on managing fish and wildlife activities, and regulations concerning activities on mining claims in areas where the claims were located before the area was designated wilderness.

Whipple Mountains Wilderness Study Area in California, near the Arizona border.

D. Renewable Resource Programs

Rangeland Management

An anniversary portrait . . . the Taylor Grazing Act of 1934 ended previously free and unregulated grazing use of the Public Lands and introduced Federal protection and management of the lands and their resources. The Act was implemented through the combined efforts of the livestock operators and the newly created Division of Grazing, which was renamed the Grazing Service in 1940. Since 1946, when the Grazing Service was combined with the General Land Office to create the BLM, rangeland condition on Public Lands has improved considerably as the result of reductions in livestock numbers to the grazing capacity of the land, improvements in livestock grazing management and range improvement practices, and cooperation of the livestock industry that is dependent on public rangelands.

Range Management

Range conservationists administer the grazing program on the Public Lands, in conjunction with wildlife biologists, soil scientists, hydrologists, environmental specialists, and other staff to ensure that grazing use is in harmony with other resources and uses on the Public Lands. The general goals of the range management program are:

- to manage livestock grazing on the public rangelands to balance use and sustain or improve resource productivity;
- to protect and improve the rangeland resources through sound land use planning, which includes making cost-effective investment and management decisions;
- to make decisions in consultation, cooperation, and coordination with lessees and permittees, affected landowners, interest groups, individuals, and other agencies; and
- to make sure that rangeland improvements provide multiple-use benefits.

A total of 130 site-specific grazing environmental impact statements have been completed, including 11 in Fiscal Year 1986; they address livestock grazing on 148 million acres of Public Lands in 10 Western States. After an environmental impact statement is completed, allotment management plans are prepared to identify specific on-the-ground activities to meet the resource management objectives identified during land use planning. The BLM prepared 193 allotment management plans during Fiscal Year 1986.

BLM completed 193 allotment management plans for public rangelands in 1986.

In Fiscal Year 1986, about 4 million acres were inventoried using the ecological site inventory methods; the resultant data will be a basis for land use planning, for identifying and supporting needed management actions, and for detecting changes in resource condition through monitoring studies. In addition, dur-

ing the fiscal year, 4,400 allotments were monitored, through the collection and analysis of data on climate, actual grazing use, utilization on key forage plants, special events (insects, fire, etc.), and trend in range condition. Range improvements during Fiscal Year 1986 included development of 623 water facilities, construction of 393 miles of fencing, development of 84 management facilities, treatment of 53,008 acres of vegetation, and maintenance of 113 improvement projects.

The Pubic Rangelands Improvement Act of 1978 established a grazing fee formula for a seven-year trial period. The Act also required the Secretaries of Agriculture and Interior to submit to Congress an evaluation of grazing fee options and a recommendation on a formula to be used in 1986 and subsequent years. During Fiscal Year 1986, the Secretaries of the Interior and Agriculture submitted to Congress the Grazing Fee Review and Evaluation Report, along with their recommendation. While Congress deliberates the grazing fee issue, the Secretaries, under Executive Order, will continue determining the annual grazing fee by using the formula established by the Public Rangelands Improvement Act, with a minimum fee of $1.35 per animal unit month.

BLM and the Forest Service submitted a report to Congress on the results of the Experimental Stewardship Program and recommendations on the role of the program in rangeland management, as authorized by the Public Rangelands Improvement Act. The purpose of the Experimental Stewardship Program was to foster innovation, cooperation, and better range stewardship, leading to improved conditions of the public rangelands. The program has improved communication and cooperation between private range users and BLM and Forest Service personnel. It has also increased pride in, and commitment to, the stewardship of Public Lands.

Soil, Water, and Air Management

Soil, water, and air resource considerations are often key to both the short- and long-term objectives of other BLM programs. Identification or inventory of existing soil, water, and air resources is the initial step in providing information needed for multiple-use planning and management.

The Taylor Grazing Act of 1934 recognized the need to control soil erosion and flooding, thus setting the stage for the present soil, water, and air management programs in BLM. During the 1950s and 1960s, many water-spreading systems, flood control structures, and seedings were completed under the soil and moisture program. Watershed protection was one of ten overall objectives for Public Land management listed in the Classification and Multiple Use Act of 1964. The Public Rangelands Improvement Act (1978) establishes a national policy to identify soil and water conditions and manage for their maintenance and improvement.

Soil surveys were completed on 5 million acres during Fiscal Year 1986, bringing the total number of acres inventoried to 131 million. The goal is to complete a soil survey on 157 million acres of public rangelands by 1990.

Soil, water, and air resources can be important factors in developing other resource programs.

BLM continues to approach the Fiscal Year 1988 goal for quantifying existing water uses. During Fiscal Year 1986, 4,040 sources were added to databases used for recording water right filings with the States. Filings were made by BLM to the States for those water sources needed to provide for management of the Public Lands.

The completion of 220 watershed improvements in Fiscal Year 1986 provided for reduced erosion and sediment yields, streambank and channel stabilization, and salinity control. Maintenance of existing improvements continues as an ongoing effort, with 80 projects being completed in 1986. Approximately 2,350 watershed stations were monitored to assess progress toward meeting soil and water management objectives.

The air resource program supports the operation of more than 50 Remote Area Weather Stations to provide climatic information for use in a wide variety of management activities. BLM's energy and mineral development activities, smoke management, and other programs are aided by the air modeling capabilities of the air resource program.

BLM's air resource program continues to play a key monitoring role in the National Acid Precipitation

Assessment by operating 15 acid rain monitoring stations at remote locations in nine Western States. These stations provide data essential for the development of acid precipitation maps used to determine trends and possible impacts of acidic deposition in the western United States.

Forest Management

An anniversary portrait . . . 2.4 million acres of commercial forest lands in western Oregon continue to constitute the most productive Douglas fir forest in the world, accounting for over 90 percent of the total board feet produced from BLM forests.

Approximately 90 million acres of BLM-administered lands are forested. Most of these lands are in Alaska; however, some 26 million acres lie within the lower 48 States, including 21 million acres of woodlands and 5 million acres of commercial forest lands, capable of producing high quality commercial timber.

Logging operation on BLM timber sale in Montana. Photographer: Del Harding

In western Oregon, 1.280 billion board feet of timber were offered and sold during Fiscal Year 1986 and 1.204 billion board feet were harvested. On Public Lands outside western Oregon, BLM sold 92 million board feet of timber, and offered and sold enough firewood to heat 35,000 homes. BLM also sold 90,000 Christmas trees in Fiscal Year 1986. Receipts from timber sales in 1986 totaled $162.2 million, of which $40.5 million was returned to the General Treasury.

The Federal Timber Contract Payment Modification Act requires the Secretary of the Interior to include in this report any actions that discourage bidding such that a purchaser is unable to perform contracts or any bidding that leads to speculation. In the process of monitoring bidding practices, BLM has discovered no evidence that indicates abuses. All timber sale contracts currently being purchased are being performed, and there is no evidence of speculative bidding. Rules implemented in 1982, requiring up-front cash deposits and scheduled payments and establishing procedures to offer more short-term contracts, have been effective. However, BLM will continue to monitor bidding practices.

Trees were planted on about 20,500 acres in western Oregon, and reforestation was completed on 2,300 acres in other areas. In addition, 27,000 acres in western Oregon and 2,200 acres elsewhere were managed using intensive forest management practices.

Wildlife Habitat Management

An anniversary portrait . . . up until 1961, wildlife habitat management played a minor role in BLM operations, incidental to other programs. In September 1961, the first BLM wildlife biologist was hired and within a year half a dozen wildlife biologists were on BLM's payroll in various offices. On Public Lands in the past 25 years, elk have increased from 35,600 to 126,000 animals and antelope from 195,900 to 266,000 animals; 50 million acres of fish and wildlife habitat are being improved through implementation of nearly 400 fish and wildlife habitat management plans; and 5 million acres of threatened and endangered species habitat are being improved through implementation of 56 recovery plans.

Pronghorn antelope near Ft. Stanton, New Mexico. Photographer: Matthew Safford

BLM manages extensive and diverse habitat for over 3,000 wildlife species, including 127 Federally listed threatened or endangered plant and animal species and more than 800 species that are candidates for Federal listing. The BLM ensures that the needs of

these and other key fish and wildlife species are considered in land use planning and decisionmaking. Further, the BLM works in partnership with State wildlife agencies to ensure conservation and rehabilitation of wildlife habitat under the Sikes Act and FLPMA. FLPMA itself identified fish and wildlife habitat development and utilization as one of the six principal or major uses of the Public Lands.

During Fiscal Year 1986, the BLM constructed 556 fish and wildlife habitat projects, such as water facilities, fences, den and nest facilities, and instream flow structures. In addition, 45,892 acres were improved through prescribed burning, seeding, disking, and chaining. Habitat improvement projects are delineated in habitat management plans. These plans, cooperatively developed with State wildlife agencies and conservation organizations, focus on areas with significant fish and wildlife resources. In Fiscal Year 1986, the BLM prepared or revised 80 habitat management plans and participated in the development of 29 recovery plans for threatened or endangered species.

Badger in Laramie River Valley. Photographer: Andrew J. Senti

In support of land use and management efforts, 164,017 acres of fish and wildlife habitat were inventoried, including nearly 119,285 acres of threatened or endangered species habitat. Monitoring of fish and wildlife habitat is conducted to determine whether fish and wildlife habitat management objectives are being met in BLM land use and management activities. A total of 1,735 plans were monitored this fiscal year.

Wild Horse and Burro Management

An anniversary portrait . . . in the 15 years since passage of the Wild Free-Roaming Horse and Burro Act, these animals have been protected with such success that the BLM must now focus on the removal and disposition of excess wild horses and burros from the Public Lands. The Adopt-A-Horse Program has found homes for nearly 70,000 excess wild horses and burros, but thousands of unadopted animals are being maintained in corrals at Government expense.

Fifteen years ago, Congress responded to public concern for America's wild horses and burros by passing legislation to "require the protection, management, and control of wild free-roaming horses and burros on public lands." These animals were seen as symbols of the historic and pioneer spirit of the West. Fearing that wild horses and burros were fast disappearing, Congress acted to preserve this resource on the Public Lands. Under Federal protection, wild horse and burro herds increased steadily. The population on lands administered by BLM approached 65,000 wild horses and burros in 1980, more than twice the estimated appropriate management level of about 30,000 animals. A removal program over the past two years has reduced the population from about 60,000 wild horses and burros at the beginning of the Fiscal Year 1985 to approximately 44,800 animals at the end of Fiscal Year 1986.

BLM began Fiscal Year 1986 with nearly 10,000 excess wild horses in its corrals and contract facilities, and removed 8,843 excess wild horses and 1,283 excess wild burros from the Public Lands during the year. The law provides the following order and priority for the removal and disposition of excess animals: old, sick, or lame animals are to be humanely destroyed; healthy animals are to be placed in private maintenance through adoption by qualified individuals; and animals for which there is no adoption demand are to be destroyed in the most humane and cost-effective manner possible. However, since 1982, BLM has had a moratorium on destruction of healthy animals.

In Fiscal Year 1986, BLM placed 6,332 wild horses and 1,268 wild burros in private care through the Adopt-A-Horse (or Burro) Program. Because of the moratorium on destruction of healthy animals, BLM maintained more than 11,000 unadopted healthy animals in BLM corrals or in contract holding facilities at a cost of about $2.50 per animal per day.

Nearly one-third of the adoptions in Fiscal Year 1986 were accomplished through fee waiver arrangements. BLM's Director can reduce or waive the adop-

tion fee for animals that are unadoptable at the standard fee of $125 per horse or $75 per burro. Adoptions where the fee is reduced or waived usually involve a minimum of 100 animals.

Several special events promoted the adoption program this year. These included annual Wild Horse and Burro Days celebrations at the Cross Plains, Tennessee adoption center in June and at the Lewisberry, Pennsylvania adoption center in September. The Liberty Hill, Texas center, which is the newest contract adoption center, held a grand opening the last weekend in September. Considerable publicity accompanied a Los Angeles celebrity polo match and temporary adoption center in April and the Wild Horse and Burro All-American Expo at Bob Evans Farm in Ohio over the Fourth of July weekend.

Public Lands in the West were home to more than 38,000 wild horses at the end of 1986. Photographer: Bill Tarpenning

More than 1,200 wild burros were adopted by members of the public in 1986.

At Disneyland's newly opened Big Thunder Ranch, several wild burros are part of a re-creation of an 1880s working horse ranch. These burros are also available for adoption. The high visibility of the BLM burros at Disneyland provides valuable publicity for the entire adoption program.

A pilot program in Colorado explored the possibility of increasing the adoptability of hard-to-place wild horses by having prison inmates gentle the animals. This cooperative venture between BLM and the Colorado State Department of Corrections also involved the help of a volunteer organization that provided guidance and instruction to the inmates in the care and training of wild horses. Initial results of the pilot program were promising, and the BLM Director asked that other State Offices investigate the feasibility of similar programs in their jurisdictions.

Despite these efforts, many animals are unlikely to be adopted because of age, poor conformation, or other traits seen as undesirable by most potential adopters. Unadopted healthy excess animals are maintained in three contract holding facilities, located in Bloomfield, Nebraska, Lovelock, Nevada, and Muleshoe, Texas. The cost of these contracts and associated veterinary contracts in Fiscal Year 1986 was $6.8 million.

In an attempt to resolve the persistent problems facing the wild horse and burro program, the Secretaries of the Interior and Agriculture chartered a Wild Horse and Burro Advisory Board in Fiscal Year 1986 to advise them on policy formulation and other matters related to administration of the Wild Free-Roaming Horse and Burro Act. The nine-member board was appointed in May and met three times in Fiscal Year 1986 to gather data and hear public testimony.

Another significant accomplishment in Fiscal Year 1986 was publication of final regulations that reor-

ganized, streamlined, and clarified existing rules on management, protection, and control of wild horses and burros. The regulations on private maintenance (adoption) of excess animals were expanded to incorporate all of the requirements for adoption, including fees, qualifications, conditions for care and treatment of animals, and conditions for obtaining replacement animals.

Three research efforts were pursued on wild horses in Fiscal Year 1986 through contracts with outside investigators. The first investigated relationships between blood chemistry parameters and condition (age, sex, weight, size, and reproduction status) in captured wild horses. The other two investigations dealt with breeding structure and possible methods to suppress reproduction in herds of wild horses. Field work to evaluate both stallion-focused and mare-focused fertility control methods was begun and will extend through Fiscal Year 1991. Animals were implanted with fertility suppressant compounds (mares) or vasectomized (stallions) and fitted with radio transmitters; reproduction from these and associated animals will be monitored for the duration of the study.

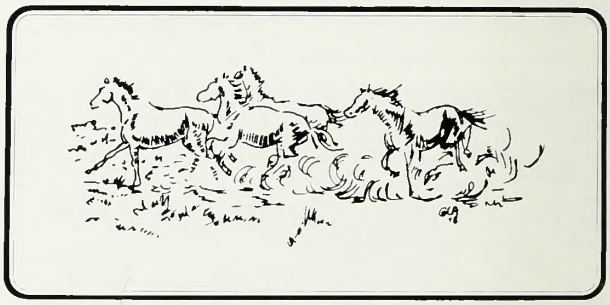
In the area of planning, 9 herd management area plans were completed in Fiscal Year 1986, bringing the total to 117 plans. These plans were completed for each area where wild horses or burros will be managed in the long term. They delineate the herd size, management objectives for the herd and its habitat, methods to be used to reach the objectives, and monitoring techniques.

Five lawsuits related to wild horses and burros were pending at the beginning of the fiscal year, and three of these were resolved or dismissed. One new suit was filed during the year.

Of the six suits before the courts in Fiscal Year 1986, five concerned the impact of wild horses on public and private lands. In the sixth case, two humane organizations charged BLM with inhumane treatment of wild horses and burros in relation to capture, transportation, and maintenance of the animals.

One of the cases settled in Fiscal Year 1986 was dismissed without prejudice, and two were resolved in the Government's favor. The Ninth Circuit Court held that the Government is not required by the Wild Free-Roaming Horse and Burro Act to prevent wild horses from straying onto private lands. The Tenth Circuit Court ruled that the Government is not responsible for damage resulting from use of private lands by wild horses.

In those cases still pending at the close of the fiscal year, no action had been taken in two. In the third, involving allegations of inhumane treatment of animals by BLM, an agreement was reached in August on all points except large-scale fee waiver adoptions. In September, plaintiffs filed a motion for summary judgment on this issue, and the Government prepared to file an opposition to that motion together with its own motion for summary judgment.



E. Support Services

Law Enforcement

An anniversary portrait . . . areas of enforcement which have received particular emphasis since establishment of the law enforcement program in 1976 include investigation and eradication of cannabis cultivation; prevention of theft, destruction, and sale of protected archaeological resources from Public Lands; and investigation of oil and gas theft.

With the passage of FLPMA, BLM initiated a law enforcement program that utilizes Special Agents and Law Enforcement Rangers, all well trained in law enforcement, to enforce laws pertaining to the Public Lands. Where feasible, law enforcement agreements with local officials are also used to enforce laws or ordinances of the respective State or subdivision upon Public Lands. BLM law enforcement officers perform a full spectrum of patrol and investigative duties and are authorized to enforce all Federal laws and regulations pertaining to use, management, and development of the Public Lands and their resources.

During Fiscal Year 1986, BLM Special Agents and Law Enforcement Rangers continued efforts with other Federal, State, and local agencies to eradicate cannabis on Public Lands in California, Oregon, and other Western States. Such a cooperative effort is California's Campaign Against Marijuana Planting (CAMP). BLM played a leadership role in supporting and helping to organize CAMP. In Fiscal Year 1986, CAMP destroyed more than 117,000 cannabis plants, valued at more than $403 billion. This included some 13,860 plants on Public Lands, with a value of $20.5 million.

Law enforcement officer sorts through marijuana confiscated from Public Lands in the West. Photographer: Cindy McKee

Cadastral surveyors define the boundaries of the Public Lands.

Cadastral Survey

An anniversary portrait . . . The authority for surveying the Public Lands derives from the Land Ordinance of 1785 which with some modification was reenacted in the Public Lands Act of 1796. Surveying responsibilities rested with the General Land Office and were assigned to BLM in 1946. Today, BLM's newly initiated Land Information System is a bold new concept that will dramatically increase the ability of BLM to effectively manage the multiple resources of the Public Lands.

BLM maintains all official Public Land Survey System land records. Accomplishments during Fiscal Year 1986 in the lower 48 States include completion of 462 plats, 181,755 acres of original survey, and 1.1 million acres of resurvey. In Alaska, 328 plats and 2.4 million acres of original survey were completed in Fiscal Year 1986.

Cadastral survey project offices were established in the Arizona and Wyoming State Offices to accommodate the large number of survey requests encountered in certain areas. The Navajo Nation Project Office executes a large number of original surveys so that legal descriptions based on the Public Land Survey System can be created for mineral leasing and located on the ground. The Gillette Project Office performs resurveys in the Powder River Basin of northeastern Wyoming where distortions in the original surveys have resulted in mislocations of coal mining operations and oil well sites and numerous trespasses.

A Geographic Coordinate Data Base test project was initiated in the Farmington Resource Area Office in New Mexico. This project will assign geographic coordinates to corners of the Public Land Survey System so that an automated Land Information System

can be created in cooperation with the Automated Lands and Minerals Record System.

Fire and Aviation Management

An anniversary portrait . . . the suppression of wildfires has been a BLM function since the agency was created in 1946. BLM annually conducts over 700 prescribed fires on nearly 100,000 acres, primarily to enhance forestry, range, and wildlife management, and undertakes more than 100 projects at a cost of $5.6 million to rehabilitate areas burned in wildfires.

Fire Management

Fire has always been a part of the natural environment. However, BLM sees fire from two different aspects: wildfires that cause negative impacts and must be suppressed and prescribed fires that can be used toward achieving positive resources management objectives. Numerous laws have aided the establishment of the fire program, but the most significant are the Timber Protection Act of 1922, the Taylor Grazing Act of 1934, the O&C Act of 1934, the Wilderness Act of 1964, and FLPMA. The fire program continues to develop with new technology in ground equipment, aircraft, and computer technology.

The Fiscal Year 1986 fire season was near normal for BLM, but well above normal for total nationwide fire activity. BLM had more than 2,600 fires that burned 1.2 million acres. Most of these fires occurred during June in Alaska and July and August in Eastern Oregon and Idaho. Lightning caused numerous days of multiple ignitions, which spread initial attack forces very thin. At the same time, the other firefighting agencies in the areas had similar problems. Interagency reinforcements were required from outside the affected areas for several weeks in order to combat this reoccurring natural event. The Incident Command Subsystem of the national Interagency Incident Management System was fully implemented during the 1986 fire season.

The BLM-managed Boise Interagency Fire Center located in Idaho provides support to the Departments of the Interior, Agriculture, and State (for assistance to foreign countries) and to the States. Because of the high level of activity in other agencies this year, the Boise center had a very active year, supporting 727 fires. The center moved 17,190 personnel, including 759 20-person crews, utilizing contract aircraft, commercial charter, and military large transports. There were nine Interdepartmental Class I Overhead Team assignments. In addition, the center supported several non-fire activities, including search and rescue programs, law enforcement, insect spraying, floods, and earthquakes. Personnel and equipment support were provided for several locations in Africa at the request of the Office of Foreign Disaster Assistance.

The Alaska Fire Service, which is managed by BLM for Department of the Interior agencies in Alaska, has a very active fire season during the months of June and early July. They suppressed 396 fires that burned 395,169 acres. Emergency personnel, hired primarily from the Alaskan Native villages, were paid $2.8 million during this fire season.

The use of prescribed fire to accomplish resource and fire management objectives was about normal in Fiscal Year 1986. There were 715 projects completed that burned 78,264 acres. More than 500 of the projects were for forestry management; however, the most acreage burned was for range management where 47,894 acres were treated.

Fire rehabilitation costs on damaged soil/watershed areas was $5.65 million, distributed between 113 projects. Fire rehabilitation may consist of reseeding of grass or shrubs and construction of protective fences or check dams.

Aviation Management

Aviation management is as old as BLM itself. From the beginning, aircraft use has increased in both quantity and quality. Today BLM contracts for a full range of aircraft services, from a Boeing 727 at the Boise Interagency Fire Center for long distance transportation of fire crews and equipment, to single-engine spray planes for application of seed and spray. Annually BLM accomplishes in the neighborhood of 50,000 flight hours at a cost of approximately $27 million.

In 1985 the Washington Office was reorganized, and a process was established to facilitate the placement of full-time aviation management positions at each State Office. Currently, all States have moved forward with this effort.

BLM is responsible for suppressing wildfires on more than 350 million acres of Federal and non-Federal lands in the 11 Western States and Alaska.

Engineering Services

An anniversary portrait. . . when BLM was established in 1946, it inherited its physical facilities from its parent agencies, the General Land Office and the Grazing Service, along with a primitive road system that reflected the miscellaneous needs of ranchers, mining companies, railroads, and county and State governments. Since the mid-1960's, BLM has constructed numerous roads and trails necessary for administration of the Public Lands and, where suitable leasable facilities are not available, has constructed its own office buildings, warehouses, shops, and other facilities tailored to the agency's resource management responsibilities.

During Fiscal Year 1986, BLM completed the fire warehouse in Fairbanks, Alaska. Also during 1986, an architectural and engineering contract was developed, awarded, and administered to design the new Fairbanks District Office complex. The contract for construction of this major complex was also awarded in Fiscal Year 1986, with construction to begin early in Fiscal Year 1987. Numerous smaller projects such as recreation facilities, fire stations, shop areas, and telecommunications buildings were completed in addition to the major ones mentioned.

BLM provided maintenance to approximately 140 office buildings, more than 800 other BLM-owned buildings and associated water and sewer systems, about 800 developed family unit recreation sites, an additional 5,000 undeveloped (without water) sites, approximately 10,000 miles of roads, more than 1,000 miles of trails, and 30 bridges.

With Fiscal Year 1986 completions, BLM has available 1:100,000 scale surface and subsurface maps providing coverage for approximately 90 percent of the lands administered by BLM. Revision work was completed on 1:500,000 scale State bases and 1:100,000,000 wilderness maps. Photogrammetric and remote sensing support was provided by a central office at Denver as well as within each State. The first steps for automation of cartographic functions were initiated in Fiscal Year 1986, and the mapping will become an integral part of BLM's Land Information System.

Additional support was provided through survey and design of various range improvement and watershed construction projects. BLM is continuing its dam inventory and hazard assessment programs.

Information Resources Management

An anniversary portrait . . . BLM land records management responsibilities can be traced to the General Land Office established in 1812 to handle the original homestead claims and other types of land disposition. In 1946, when BLM was formed from the Grazing Service and the General Land Office, additional information management responsibilities were added.

Within BLM,automated data processing, records, and telecommunications management are not separate entities but are integral parts of information resources management. The management of information in BLM has become increasingly complex as more electronic records are created.

BLM first got into automated data processing in the 1960s, primarily for financial records. In 1978 BLM acquired its current mainframe computer system, located at the Service Center in Denver, Colorado. In 1980, BLM State Offices started obtaining minicomputer systems that tied in with the Service Center mainframe. More recently, there has been increased use of microcomputers in the various field offices.

Use of telephones and radios for communication has increased over the years and the technology used has changed significantly in many respects. Now, satellites, microwave, optical fibers, and radio repeaters are used to carry messages in addition to more conventional wire lines.

Activities during Fiscal Year 1986 focused on:

- continuing the major multiyear study for the Automated Data Processing Modernization Project, which will establish BLM needs and approaches to modernizing equipment to meet future requirements and which will be implemented in Fiscal Year 1988;
- continuing the automation of land and mineral records;
- publishing the *1985 Public Land Statistics*;
- performing Information Systems Reviews for three State Offices to assist them in management of their information systems, telecommunications, and records management needs and capabilities;
- restructuring administrative telephone systems in response to divestiture of the AT&T Company and the associated Bell Operating Companies;
- evaluating the use of communications satellites to provide short-term support in remote areas for such activities as fighting large wildfires on Public Lands;
- using electronic mail to send messages at a high speed, thus reducing the number of relatively long and more expensive telephone conversations; and
- inventorying BLM records in all media to determine up-to-date legal retention and disposition authorities for BLM information.

Volunteers and Other Contributed Services

An anniversary portrait . . . over the last six years, 22,324 persons have demonstrated a "Take Pride in America" spirit by contributing a total of 1.5 million hours of unpaid public service, valued at $11.3 million, to assist in conserving, developing, and managing Public Land resources, and in serving visitors to the Public Lands.

BLM's volunteer program, initially authorized in 1976 as part of FLPMA, was strengthened in 1984 with enactment of Volunteers for the Public Lands legislation (Public Law 98-540) requested by BLM.

In Fiscal Year 1986, the Volunteer Program continued to grow and is now the mainstay of BLM's participation in the Administration's "Take Pride in America" campaign, a national public awareness campaign to encourage all Americans to participate constructively in the stewardship of the Nation's natural and cultural resources. During the year 7,743 citizens—an increase of 61 percent over 1985—donated 397,373 hours of work (the equivalent of 221 work-years) valued at $3.4 million. Costs to the Government associated with this volunteer activity were estimated at $304,318, indicating a benefits-to-costs relationship of 11 to 1.

Considered in terms of volunteer work-years as a percentage of BLM employee work-years, BLM's Yuma (Arizona) District in effect extended its workforce by 45 percent during 1986. A second District—Ukiah, in northern California—reported this percentage amounted to 22 percent in 1986. Ten Districts reported percentages of 5 percent or more, and the average for all 55 Districts was 3.8 percent.

BLM's volunteers assist in a diversity of ways, contributing many different kinds of skills and talents. Overall, the kind of volunteer projects that attracted the most support in 1986 continued to be those concerned with the protection and management of renewable natural resources. These included recreation, 39 percent; wildlife, 16 percent; historic or cultural, 8 percent; forestry, 6 percent; rangeland, 3 percent; wilderness, 2 percent; wild horses and burros, 2 percent; watershed and hydrology, 1 percent.

About one-third of BLM's volunteers are under 18 years of age; 9 percent are 55 or older. About one out of four is female.

"Thank-You" Awards. In 1986 BLM initiated its first national awards program to acknowledge excellence in accomplishment by its volunteers, some of whom work as individuals, and some as members of organizations. Together, the winners of these first annual "Volunteers for the Public Lands" National Awards provide a kind of group portrait of BLM's dedicated volunteers, both in the diversity of their wide-ranging interests and spectrum of skills, and in the differing ways in which they serve the Public lands and the visitors these lands are increasingly attracting. BLM also expressed its appreciation to some of its employees and units whose initiatives have resulted in notable success in attracting volunteers and making the program effective. The awards for both groups were given for two levels of accomplishment: exemplary service and outstanding service. All winners, and their accomplishments, are described in Appendix A.

F. General Administration

An anniversary portrait . . . BLM's numerous internal initiatives to reduce administrative and overhead costs, streamline, and consolidate systems have saved taxpayers $7.1 million since these initiatives started in Fiscal Year 1985.

Administrative Services

During Fiscal Year 1986, BLM spent $100 million for goods and services. Formal contracts awarded by the major buying offices to support field office pro-

grams totaled $58 million. Field offices expended an additional $42 million for small purchases.

BLM continues to exceed its goals in various socio-economic procurement programs, as shown in Table A.

Table A. BLM Procurement Program, Fiscal Year 1986

	FY 1986 Goal ($000)	Actual Award ($000)
Labor Surplus Area Set-asides	$ 8.0	$12.6
Small Businesses	20.7	35.4
Minority Business	2.6	4.9

In Fiscal Year 1986, an Automated Fleet Management System was developed for implementation beginning in Fiscal Year 1987, to improve fleet management. The new system will provide current fleet management data for managers and users as well as automated reporting for General Service Administration assigned vehicles. The system will also reduce time and paperwork required through electronic data entry, while providing a variety of automated reports for over 5,000 motorized vehicles and equipment. The major buying offices instituted an automated solicitation and contract document preparation system during 1986.

In May 1986, BLM's uniform program was expanded to allow for a broader segment of personnel to be equipped with uniforms identifying affiliation with BLM. The decision to expand the uniform program was, in part, based on recommendations developed from the Project Pride initiative. The directive which authorized the expansion of the program stated, "Uniforms and a professional appearance are especially appropriate in light of our need for visibility as professional resource managers. We are constantly trying to improve our service to the public and our professional and public visibility and recognition. We are very enthusiastic about our efforts in this area and believe it will further the success of the BLM's mission." Specifications are being developed that will eventually allow BLM to award a national contract for the supply of all uniform components.

Financial Management

BLM's Division of Finance in the Washington Office directs the operation of improvements to BLM's accounting system; provides guidance on financial management policy and procedures; provides coordination of and guidance for implementation of the Debt Collection Act of 1982 and Office of Management and Budget Circular A-123, Internal Control Systems; manages the Payments in Lieu of Taxes program, the BLM Public Land revenue sharing payments to State and local governments program, and monetary credits issued by BLM to the private sector.

During Fiscal Year 1986, BLM continued its program to improve cash management. The Division of Finance coordinated with the Office of the Secretary and the Department of the Treasury to continue the use of private banking "lockbox" facilities to permit the use of an electronic funds transfer system to expedite the collection and deposit of Oregon and California Grant Lands timber revenues. Approximately $57.2 million was collected in Fiscal Year 1986 by the use of lockbox. This resulted in an estimated interest savings to the Federal Government of $63,500 for Fiscal Year 1986.

The Division of Finance supported programs with unique financial management needs such as fire suppression administrative support teams, reimbursement procedures, mineral leasing, and billings and collections. The Division of Finance also was responsible for coordinating and overseeing BLM's implementation of internal control systems to ensure that all programs and functions performed by BLM are reviewed periodically to minimize the possibility of waste, fraud, and abuse in accordance with the Federal Managers' Integrity Act.

BLM managed the Departmentwide debt collections contract, referring 268 claims totaling $286,296 to the contractor. In addition, a total of 100 claims totaling $141,392 were either settled or written off during the year.

Procedures were developed for issuing, processing, and maintaining accountability for monetary credits totaling approximately $18 million, including accrued interest. The monetary credits were issued by BLM in exchange for revoked mineral leases and certain land acquisitions authorized by law. Credits are transferable and can only be used for payment of coal lease bonus bids, rentals, and royalties due to the United States Government.

The division distributed $117.2 million to State and local governments in Fiscal Year 1986. A total of $17.1 million in Public Land revenue sharing pay-

ments was paid to State and local governments, and a total of $99.4 million in payments in-lieu of taxes were distributed to more than 1,917 units of local government. A summary of payments made to State and local governments in Fiscal Year 1986 appears in Section III of this report.

Evaluations / Audits

BLM's Division of Program Evaluation in the Washington Office is responsible for directing BLM's program evaluation system. The division assures that objective feedback is provided to the Director of BLM in evaluating the strategy, efficiency, products, impacts, and effectiveness of BLM programs and the managerial, administrative, and functional performance of BLM officials in exercising their delegated authorities and assigned responsibilities. It conducts regularly scheduled general management, program, and special evaluations. The division also maintains coordination and liaison with the General Accounting Office and the Department of the Interior's Inspector General's Office. In addition, it provides training and technical support to State and program offices in matters related to technical evaluation.

During Fiscal Year 1986, the Division of Program Evaluation completed the following evaluations:

- New Mexico General Management Evaluation, February 1986
- California General Management Evaluation, March 1986
- Montana General Management Evaluation, May 1986
- Bureauwide Mineral Materials Program Evaluation, April 1986

Also during Fiscal Year 1986, Administrative Procedures Reviews were conducted in California, Idaho, and New Mexico. Information Systems Reviews were conducted in California, Colorado, and Nevada. A Bureauwide Technical Procedures Review was conducted on mining claim recordation. Technical Procedures Reviews were also conducted on fire management in Nevada and Utah, aviation in Alaska, solid mineral leasing in New Mexico and Colorado, and appraisal operations in Utah. An Acquisition Management Review of the Denver Service Center was also conducted, and Personnel Management Evaluations were conducted in Idaho, New Mexico, and Wyoming.

Numerous evaluations were completed by State Office organizations including general management evaluations of the following district offices: Bakersfield, California; Coeur d'Alene, Idaho; Dickinson, North Dakota; Ely, Nevada; Las Cruces, New Mexico; Vernal, Moab, and Richfield, Utah; Roseburg and Vale, Oregon; Worland, Wyoming; and Yuma, Arizona. Statewide program evaluations were conducted on recreation management in Alaska, recreation maintenance in Oregon, cultural resources in Wyoming, and wilderness in Wyoming. Statewide special evaluations were conducted on mineral patents in Alaska, range management and maintenance in Idaho, birds of prey in Idaho, land use planning in Idaho, and training in Utah.

BLM provided information and assistance to the General Accounting Office and to the Office of the Inspector General reviewing BLM programs and activities. Comments were prepared for all recommendations to draft and final reports which directly involve BLM. The division also provided technical support in fulfilling the Office of Management and Budget's Circular A-123 for Internal Control Reviews.

During Fiscal Year 1986, the division provided evaluation support to the Department of the Interior for a special evaluation on Equal Employment Opportunity and for the development and implementation of a Departmentwide personnel management evaluation questionnaire. Assistance in the statistical analysis of various questionnaires used within BLM was also provided.

Management Efficiencies

BLM is actively supporting the Administration's effort to streamline and make the Government more efficient while at the same time maintaining its service to the public. During Fiscal Year 1986, BLM identified numerous internal initiatives to reduce its administrative and overhead costs, streamline, and consolidate systems. The efforts resulted in administrative savings in Fiscal Year 1986 equivalent to 83 full-time positions and nearly $3.2 million.

BLM personnel staffs in three locations were consolidated to reduce total personnel staffing. The Eastern States Office and the Washington Headquarters Office are now served by one personnel office in Washington, D.C. Personnel services for the Idaho State Office and the Boise Interagency Fire Center were combined into one office in Boise. The Colorado State Office is now served by the Denver Service Center personnel office in Denver.

Significant savings also resulted from reduction of BLM's vehicle fleet and automation of labor-intensive efforts. Many of these efforts are relatively small projects initiated by BLM State Offices, but they are significant when considered in total.

In addition to these efforts, BLM has trimmed and reorganized its Washington Office staff, which will allow more dollars to flow to the field organizations. Appendix B provides a copy of the new Washington Office table of organization.

Significant savings also resulted from reduction of BLM's vehicle fleet and automation of labor-intensive efforts. Many of these efforts are relatively small projects initiated by BLM State Offices, but they are significant when considered in total.

Personnel Management

BLM's Division of Personnel in the Washington Office concentrated much of its efforts on developing personnel policies in connection with streamlining of personnel services, career development programs, and major position classification issues during Fiscal Year 1986.

In an effort to improve productivity through maximum use of human resources, BLM is strongly enhancing its career program. The new program has five major components: New Employee Orientation, Employee Excellence Seminar, Professional Excellence Program, Management and Leadership, and Advanced Leadership. The first two components are geared to all employees at the beginning and early stages of their careers and are designed to build an understanding of and commitment to BLM's mission and their role in that mission. The final three components focus on identifying and developing both a reserve of technological expertise and a body of high potential future managers and leaders.

During Fiscal Year 1986, BLM employed approximately 10,000 individuals. Major emphasis was placed on position management and position classification throughout BLM. Comprehensive state-level position classification reviews were conducted on a wide variety of professional and technical support positions; local personnel management committees in the field provided key direction for this effort. Monitoring of position management trends led to development of locally managed plans to achieve a better record in position management.

The Position and Pay Management Steering Committee continued to play a highly visible and important role as a major subcommittee of the BLM Management Team in overseeing the plans and progress made on a number of highly important personnel management activities in BLM.

III. Financial Management

A. Appropriations and Expenditures

BLM programs are funded through six major operating appropriations, several minor permanent and trust appropriations, and reimbursements from other Federal agencies for work performed on their behalf. In addition, the BLM budget includes one annual appropriation and numerous permanent appropriations that provide funds to State and local governments in which Federal land resources are located, either as payments in lieu of taxes or as shared revenues from the sale, leasing, or disposition of resource commodities.

FY 1986 BLM Public Lands

A history of the total funding available to BLM since Fiscal Year 1983 includes the following:

	FY 1983	FY 1984	FY 1985	FY 1986
		(in millions)		
BLM Operating Appropriations	$ 427.9	$ 482.7	$ 480.0	$ 457.8
Payments-in-Lieu of Taxes	96.3	105.0	103.0	99.9
Permanent Payments to States, etc.	579.8	58.1	141.0	12.4
Other miscellaneous	6.4	7.7	4.8	4.7
TOTALS	$1,110.4	$ 653.5	$ 728.8	$ 574.8

Funding and obligation data on a program-by-program basis for Fiscal Years 1985, 1986, and 1987 follow:

	FY 1985 Actual	FY 1986 Actual	FY 1987 Proposed
		(in thousands)	
PLANNING (including Oregon & California Grant Lands)			
Appropriation	$ 9,265	$ 9,222	$10,008
Obligations	9,264	$ 9,201	10,008
Work Years	216	214	219
ENERGY AND MINERALS PROGRAMS OIL AND GAS MANAGEMENT			
Appropriation	42,804	42,630	46,019
Obligations	42,804	42,228	46,019
Work Years	1,134	1,115	1,178
GEOTHERMAL MANAGEMENT			
Appropriation	3,227	2,639	2,475
Obligations	3,108	2,612	2,475
Work Years	72	60	55
COAL MANAGEMENT			
Appropriation	17,962	18,506	13,695
Obligations	17,370	18,444	13,695
Work Years	285	310	280
OIL SHALE/TAR SANDS MANAGEMENT			
Appropriation	2,172	2,008	0
Obligations	1,931	1,925	0
Work Years	37	25	0
NONENERGY LEASABLE (MINERALS LEASING AND URANIUM OPERATIONS)			
Appropriation	4,658	4,621	4,489
Obligations	4,458	4,617	4,489
Work Years	91	101	90
MINING LAW ADMINISTRATION AND MINING MATERIALS			
Appropriation	10,051	9,891	11,194
Obligations	9,883	9,857	11,194
Work Years	264	267	281
LANDS PROGRAM ENERGY AND NONENERGY REALTY			
Appropriation	17,888	16,076	16,725
Obligations	17,853	16,005	16,725
Work Years	474	445	480
ALASKA LANDS			
Appropriation	13,022	12,822	13,684
Obligations	12,999	12,766	13,684
Work Years	302	292	285

	FY 1985 Actual	FY 1986 Actual	FY 1987 Proposed
		(in thousands)	
RIGHTS OF WAY			
Appropriation	6,890	7,442	8,063
Obligations	6,885	7,442	8,063
Work Years	194	224	220
ACQUISITIONS			
Appropriation	24,088*	8,784	9,190
Obligations	19,336	4,143	9,190
Work Years	18	48	37
WITHDRAWAL REVIEW			
Appropriation	4,034	3,583	3,732
Obligations	4,006	3,339	3,732
Work Years	100	85	93
WILDERNESS REVIEW			
Appropriation	$ 6,419	$ 6,967	$ 7,254
Obligations	6,344	6,959	7,254
Work Years	150	159	150
RECREATION MANAGEMENT			
Appropriation	7,337	8,284	9,674
Obligations	7,273	8,348**	9,674
Work Years	173	190	196
NATURAL HISTORY AND CULTURAL RESOURCE MANAGEMENT			
Appropriation	5,279	5,783	6,618
Obligations	5,230	5,780	6,618
Work Years	119	125	120
RENEWABLE RESOURCE PROGRAMS RANGELAND MANAGEMENT (INCLUDES SOIL, WATER, AND AIR)			
Appropriation	60,195	55,431	61,627
Obligations	57,337	55,606**	61,627
Work Years	1,234	1,181	1,191
FOREST MANAGEMENT (INCLUDES PUBLIC DOMAIN AND O&C LANDS)			
Appropriation	54,766	51,485	51,302
Obligations	54,209	51,568**	51,302
Work Years	1,037	1,096	993
WILDLIFE HABITAT MANAGEMENT			
Appropriation	16,877	16,503	17,296
Obligations	16,724	16,464	17,296
Work Years	346	350	319

*Cranberry Wilderness area special acquisition appropriated $14,700,000.

**Obligations include expenditures from prior year unobligated carryover funds.

	FY 1985 Actual	FY 1986 Actual	FY 1987 Proposed
		(in thousands)	
WILD HORSE AND BURRO MANAGEMENT			
Appropriation	17,039	16,234	17,777
Obligations	16,899	16,230	17,777
Work Years	148	152	125
SUPPORT SERVICES LAW ENFORCEMENT			
Appropriation	$ 2,351	$ 3,177	$ 3,320
Obligations	2,335	3,168	3,320
Work Years	33	38	33
CADASTRAL SURVEY			
Appropriation	24,676	25,605	26,681
Obligations	24,591	25,554	26,681
Work Years	425	461	421
ENGINEERING AND MAINTENANCE			
Appropriation	15,828	15,441	16,865
Obligations	15,453	15,313	16,865
Work Years	265	269	245
FIRE MANAGEMENT			
Appropriation	9,258	10,346	10,834
Obligations	9,182	10,352**	10,834
Work Years	137	144	148
GENERAL ADMINISTRATION			
Appropriation	83,136	79,528	85,101
Obligations	83,119	79,520	85,101
Work Years	1,207	1,064	1,149
DATA MANAGEMENT			
Appropriation	14,122	13,309	15,350
Obligations	14,047	13,339**	15,350
Work Years	221	252	239

**Obligations include expenditures from prior year unobligated carryover funds.

B. Revenues and Receipts

BLM is a primary collector of Federal revenues. Gross receipts from the lease, use, and sale of Public Lands and resources totaled approximately $244 million in Fiscal Year 1986 (see Table B). Of this amount, $79 million will be returned to the States, $15.4 million was transferred to the Reclamation Fund, $8 million was transferred to other Federal agencies, and the remaining $141.4 million went into the general fund of the United States Treasury. Monies appropriated from the Treasury to BLM for operating expenses totaled $471.8 million in Fiscal Year 1986.

The development and use of BLM lands and resources generate receipts from a variety of sources. Timber receipts totaled $162.2 million in Fiscal Year 1986. Receipts generated by other BLM programs, including sales of Public Lands, simultaneous oil and gas filing fees, grazing, right-of-way leases, permits, and rentals, and other miscellaneous receipts have remained constant with receipts from past years.

C. State and Local Shares

BLM's most direct fiscal impact upon States that in-include Public Lands through revenue sharing and other direct payments. In the decade from 1976 through 1986, State and local governments received nearly $3.9 billion from the Department of the Interior as their share of revenues collected from the lease or sale of Public Land resources and as in-lieu payments for tax-exempt lands.

Revenue Sharing

Constraints authorized under the Gramm, Rudman, and Hollings Balanced Budget and Emergency Deficit Control Act of 1985 temporarily delayed revenue sharing payments during Fiscal Year 1986 under the Santini-Burton Land Sales Act, the Coos Bay Wagon Road Grant Land Act, and the National Grasslands Act. The remaining revenue sharing programs were not affected by the sequestration order since these annual and semiannual payments are not processed until the beginning of Fiscal Year 1987.

Taylor Grazing Act revenues are distributed according to the type of land generating them. Of the fees collected from livestock grazing districts, 12.5 percent are distributed to the State for expenditure by the State legislature to benefit the counties generating these grazing receipts. Grazing revenues generated on Public Lands outside the grazing districts are shared equally with the State. State legislatures have the authority to expand the funds to benefit the counties where grazing monies are collected.

Land sale revenues generated in Nevada under the Santini-Burton Act are collected and distributed on an annual basis. This Act authorizes the allocation of percent of gross revenues back to Clark County or municipality in which these revenues are generated, and 5 percent to the State of Nevada. The remaining revenues are deposited in the Land and Water Conservation Fund for the purchase of environmentally sensitive land in the Lake Tahoe Basin.

Table C outlines the distribution of receipts to States and indicates the sources of revenue sharing made by BLM during Fiscal Year 1986.

Payments in Lieu of Taxes

Local government units within Western States are the principal beneficiaries of the 1976 Payments in Lieu of Taxes Act. This law was enacted to provide Federal payments to those areas where large portions of land are in Federal ownership and, therefore, are exempt from local property taxes. Serving as a supplement to revenue sharing funds, payments in lieu of taxes are made directly to local governments and may be used for any governmental purpose.

Lands eligible for payments in lieu of taxes are Federally owned lands in the National Forest and National Park Systems, lands administered by BLM, lands dedicated to the use of Federal water resource development, dredge disposal areas under the jurisdiction of the Army Corps of Engineers, National Wildlife Reserve Areas, inactive and semiactive Army installations, and certain lands donated to the United States Government. The Act specifically prohibits payments for lands (but not certain donated lands) that were tax exempt before being acquired from State or local governments.

Since payments in lieu of taxes started in 1977, more than $1 billion has been paid to local governments; about $99 million of that amount was paid in Fiscal Year 1986 (see Table D).

Table B. Bureau of Land Management Receipts

	FY 1986 Actual	FY 1987 Estimated
STATEMENT OF PUBLIC LAND RECEIPTS		
Mineral Leases and Permits	$ 5,731,887[a]	$ 1,000,000
Sales of Public Lands & Materials (Includes Burton-Santini Act sales in Nevada)	13,943,268	13,300,000
Simultaneous Oil & Gas Filing Fees	26,584,703	24,000,000
Fees and Commissions	1,542,094	2,300,000
Sales of Public Timber	12,811,361	14,300,000
Oregon and California Grant Lands (Timber Sales)	143,682,908	137,000,000
Coos Bay Wagon Road Lands (Timber Sales)	5,686,693	5,300,000
Grazing Fees	14,574,149	15,123,000
Rights-of-Way Rentals	3,271,702	3,400,000
Rent of Land	379,465	400,000
Miscellaneous Leases and Permits	1,286,347	600,000
Nonoperating Revenue[b]	13,650,160	10,545,000
Other[c]	963,406	1,000,000
TOTALS	$244,108,143	$228,268,000
ALLOCATION OF PUBLIC LANDS RECEIPTS		
States and Counties	$ 79,170,076	$ 81,054,000
Reclamation Fund	15,470,809	17,176,000
Transferred to Other Federal Agencies	8,045,693	8,500,000
Indian Trust Fund	9,861	0
General Fund	141,411,704	121,538,000
TOTALS	$244,108,143	$228,268,000

[a]Only reflects receipts collected for the rental of oil and gas pipeline rights-of-way, Natural Petroleum Reserve revenues, and miscellaneous mineral revenues administered by the Bureau of Land Management.

[b]Incidental receipts from fines, taxes, etc., that are unrelated to routine public land administration.

[c]Receipts from Special Recreation Use Fees.

Table C. Payment of BLM Receipts to States as of September 30, 1986

States	Mineral Leases and Permits	Forage Receipts Outside Taylor Grazing Districts	Forage Receipts Inside Taylor Grazing Districts	Sale of Public Land and Timber	Other	Total
Alabama	$ 0	$ 0	$ 0	$ 132	$ 0	$ 132
Alaska	1,590,671	0	0	10,631	0	1,601,302
Arizona	20,212	106,523	95,170	87,221	0	309,126
Arkansas	0	0	0	225	0	225
California	5,324	120,066	19,252	108,146	0	252,788
Colorado	(99,214)[a]	33,777	80,736	34,946	0	50,245
Idaho	2,099	23,485	186,481	20,876	0	232,941
Illinois	0	0	0	348	0	348
Kansas	0	86	0	0	0	86
Minnesota	0	0	0	67	0	67
Montana	4,029	130,755	113,355	11,746	614,467	874,352
Nevada	0	17,205	316,950	1,334,210[b]	0	1,668,365
New Mexico	298,385	150,361	208,887	29,486	13,935	701,054
North Dakota	120	6,592	0	46	0	6,758
Oklahoma	87	223	0	1,975	16,816	19,101
Oregon	298	34,009	152,775	10,921,126[c]	0	11,108,208
South Dakota	15	54,226	0	376	1,776	56,393
Utah	20,373	205	163,457	19,769	1,326	205,130
Washington	0	19,843	0	8,951	0	28,794
Wisconsin	0	0	0	604	0	604
Wyoming	179,390	302,738	186,564	28,717	0	697,409
Totals	$2,021,789	$1,000,094	$1,523,627	$12,619,598	$648,320	$17,813,428

[a]Includes $151,182 refund of Fiscal Year 1985 overpayment.

[b]Includes $1.3 million for Santini-Burton land sales.

[c]Includes $10.2 million for Oregon and California Grant Land (excluding a prepayment of Fiscal Year 1985 receipts totaling $50.9 million) and $0.4 million for Coos Bay Wagon Road timber receipts.

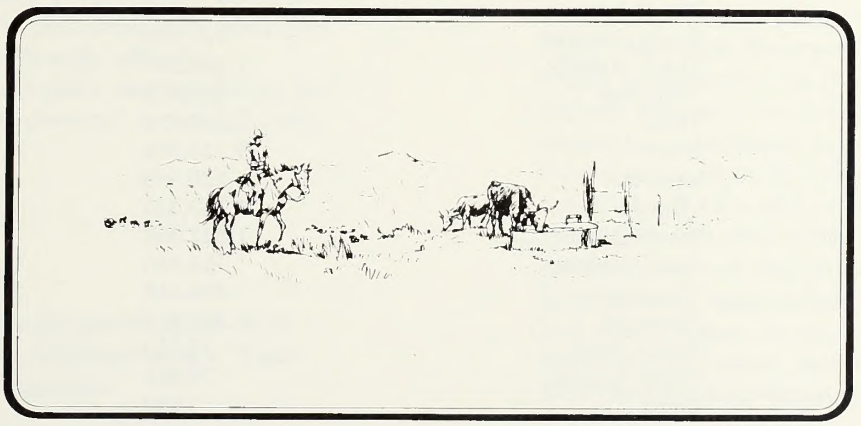


Table D. Summary of Payments in Lieu of Taxes by State

State	FY 1986 Payment
Alabama	$ 111,410
Alaska	4,548,279
Arizona	7,937,859
Arkansas	1,005,151
California	10,866,083
Colorado	5,918,866
Connecticut	24,337
Delaware	4,444
District of Columbia	5,943
Florida	1,133,944
Georgia	695,613
Hawaii	9,087
Idaho	7,419,386
Illinois	269,445
Indiana	143,646
Iowa	122,155
Kansas	369,620
Kentucky	631,225
Louisiana	195,444
Maine	56,282
Maryland	42,545
Massachusetts	75,358
Michigan	1,269,323
Minnesota	859,788
Mississippi	342,221
Missouri	1,116,761
Montana	7,931,876
Nebraska	316,891
Nevada	5,611,340
New Hampshire	277,905
New Jersey	37,073
New Mexico	10,200,296
New York	67,384
North Carolina	1,236,979
North Dakota	505,988
Ohio	215,042
Oklahoma	732,818
Oregon	2,714,285
Pennsylvania	199,537
Rhode Island	0
South Carolina	121,195
South Dakota	1,583,214
Tennessee	435,873
Texas	1,253,452
Utah	9,115,006
Vermont	220,993
Virginia	1,110,334
Washington	1,812,262
West Virginia	764,064
Wisconsin	376,656
Wyoming	7,365,612
Puerto Rico	12,139
Virgin Islands	79,805
Guam	1,640
Total	$99,473,874

IV. A Look Ahead—1987

Fiscal Year 1987 will offer many challenging issues and programs for BLM in its 41st year of managing the Nation's Public Lands. Major BLM management goals for 1987 include:

- the Administration's "Take Pride in America" campaign;
- major land exchanges to improve manageability of Public Lands;
- improvement of minerals leasing and management programs, particularly oil and gas and coal, as well as adjudication of mineral patent applications;
- proper multiple-use management of rangeland, forest lands, and wildlife habitat;
- maintenance of healthy wild horse and burro herds at viable management levels;
- hazardous materials management;
- BLM/Forest Service Interchange;
- development of a workable system for implementing the Automated Land and Mineral Record System;
- efficient implementation of land use plans;
- riparian area management;
- streamlining and strengthening support programs, such as cadastral survey and fire/aviation management, and general administrative processes.

The outcome of the National Wildlife Federation lawsuit is uncertain at this time. However, various BLM programs, including land exchanges and sales, the withdrawal review process, Recreation and Public Purpose Act leasing, mineral leasing, and mining claim recordation, could continue to be significantly affected in Fiscal Year 1987, depending upon the outcome of the suit. In turn, many individual citizens, companies, State and local governments, and other Federal agencies that are concerned with these programs could also be significantly affected.

A sampling of important goals and emphases for specific BLM programs is provided in the following pages.

Bureauwide Initiatives

Take Pride in America

- Develop and carry out programs in all BLM offices to support the Administration's "Take Pride in America" campaign.

Planning

- Establish better ties between the land use plans and implementation of decisions (including allocation of resources) by linking planning decisions with the annual work plan and identifying how automation can be used to improve implementation of plans.
- Revise the guidance for evaluation and designation of areas of critical environmental concern.

Automated Land and Mineral Record System

- Develop the final schedule for long-range implementation of the Automated Land and Mineral Record System.
- Determine software needs based on selected projects and issue the contract for the software.
- Develop key strategy for coordination with other agencies.
- Continue data collection necessary to support the project.

Riparian Area Management

- Release a final riparian management policy statement after completion of nearly two years of extensive consultation with outside groups.
- Design an education effort to demonstrate the values and benefits of proper riparian area management.
- Continue State-level riparian workshops and hold a series of Riparian Area Management Workshops in Prineville, Oregon, involving BLM; other Federal, State and local agencies; interest groups; public land users; and individuals.

Hazardous Materials Management

- Develop a hazardous materials policy so that BLM can effectively deal with toxic materials on Public Lands.
- Seek legislation to amend Section 3 of the Recreation and Public Purposes Act of 1926. The proposed amendment would authorize issuance of patents without a reverter provision for leases issued for solid waste disposal or other purposes that may result in the release of hazardous materials. Such a bill would assure that much-needed landfill sites would be available to small communities and that these communities would have primary responsibility for their operation and maintenance. It would also assure that supervision of local waste sites would be handled by State and local governments and the Environ-

mental Protection Agency, entities that have the necessary expertise to handle waste sites that may contain hazardous materials.
- Establish an effective working arrangement between land managing agencies and the Environmental Protection Agency for cleanup activities on Federal lands. Important parts of this effort are to ensure that agency expertise is used for highest priority matters and to avoid duplication of effort among Federal agencies.

BLM/Forest Service Interchange

- With the Forest Service, resubmit the proposed Interchange legislation to the 100th Congress. The legislative proposal would transfer approximately 25 million acres between BLM and the Forest Service and transfer mineral management responsibilities to the Forest Service for that agency's lands. The proposed Interchange is designed to enhance public service and improve management efficiency for both agencies. It is expected to reduce agency costs by between $13 million and $15 million annually.

Energy and Minerals Programs

Oil and Gas Management

- Support legislation to improve the oil and gas leasing program by preserving a two-tiered system under which all tracts would first be offered competitively, with those receiving no bids (or less than a prescribed minimum) being available for noncompetitive leasing.
- Prepare and publish On-Shore Orders that continue to implement the Federal Oil and Gas Royalty Management Act.

Coal Management

- Hold regional coal team meetings to determine for each coal region whether to resume planning for regional coal leasing, defer a decision for a specified period of time, or recommend that the region convert to leasing by application.
- Issue draft rulemaking for processing of coal preference right lease applications upon completion of negotiations with the conservation groups. Resume processing coal preference right lease applications once final rulemaking becomes effective, exclusive of those applications located in wilderness areas or wilderness study areas, where processing is prohibited by statute.
- Finish implementing revisions to the Federal coal leasing program based on the program review and the Secretary's decisions, including continued processing of proposed rulemaking on unsuitability criteria.

Oil Shale Management

- Scrutinize unpatented oil shale claims to determine their status and validity and intensively review methodologies for determining validity of claims.
- Continue inspection and enforcement visits on existing tracts to ensure that the terms of the leases are being met and that all applicable State and local laws are being observed.

Mining Law Administration

- Continue to eliminate delays in the adjudication of mineral patent applications.
- Propose revised surface management regulations to better define "significant surface disturbance" and the need for reclamation bonds.

Land Programs

Lands

- Emphasize exchanges to consolidate ownership and enhance manageability. Overall during 1987, BLM expects to exchange 255,000 acres, as well as process 450 desert land entry applications, offer 10,000 acres for sale, and process 250 applications under the Recreation and Public Purposes Act.
- Identify and resolve agricultural trespass on Public Lands, focusing on areas with high potential for environmental damage and significant loss of income to the public.
- Develop regulations to prohibit unauthorized use, occupancy, or development of the Public Lands and to provide for recovery of administrative and rehabilitation costs. BLM expects to complete action on 500 unauthorized use cases in Fiscal Year 1987.

Alaska Lands

- Expedite Native lands conveyances.

Rights-of-Way

- Complete final regulations for both cost recovery and rental provisions for rights-of-way.
- Complete a study of methods to expedite processing and eliminate overlapping procedures for

applications to drill on oil and gas leases and related rights-of-way.

Cultural Resources

- Continue to vigorously enforce the Archaeological Resources Protection Act of 1979, which prohibits excavation or removal of archaeological resources without a permit, and also the sale, purchase, or transport of illegally removed remains.
- Place greater emphasis on monitoring permittee compliance with permit terms and conditions to ensure the completion of good-quality and cost-effective archaeological work.

Wilderness Review and Management

- Actively participate in the 4th World Wilderness Congress to be held for the first time in the United States in September 1987. More than 5,000 representatives from throughout the world will meet to discuss wilderness and wild lands problems.
- Continue the emphasis on monitoring and surveillance of activities in wilderness study areas.

Renewable Resource Programs

Rangeland Management

- Develop a Bureauwide policy for monitoring range and rangeland uses to ensure proper management and utilization of rangeland and to facilitate multiple-use management. Consultation, coordination, and cooperation with permittees, lessees, landowners, other agencies, and other affected members of the public will continue to provide full opportunities for public involvement in BLM's range management program.
- Issue proposed regulations authorizing Cooperative Management Agreements between BLM and selected grazing permittees/lessees.
- Submit a report to Congress that describes a comprehensive program for minimizing salt contributions to the Colorado River from lands administered by BLM, as required by the Colorado River Basin Salinity Control Act.

Forest Management

- Conduct an in-depth analysis of timber sales program on Public Lands, identifying specific costs and benefits, to enable BLM to make reasonable future decisions about its timber management program.
- Continuing through 1992, begin to reforest identified lands that have not responded to reforestation efforts in the past and are in need of reestablishment of the natural forest.

Wildlife Habitat Management

- Improve wildlife habitat on Public Lands, through coordination with other BLM programs, habitat management efforts on the ground, and continue close cooperation with State wildlife agencies.
- Increase efforts to encourage private investments of funds, materials, and labor for on-the-ground wildlife projects and activities. Findings and recommendations from a recently established fish and wildlife private investments team will outline new funding opportunities for fish and wildlife projects.
- Develop and implement habitat plans and on-the-ground actions for threatened and endangered species, species of high economic value, and non-game species of high Federal interest, riparian/wetland areas, and aquatic/fisheries habitats.
- As part of strategic fish and wildlife planning, form ad hoc teams to focus on habitat management for raptors, waterfowl, and anadromous fish along the Pacific Coast.

Wild Horse and Burro Management

- Maintain healthy herds of wild horses and burros in balance with other resource values at appropriate management levels as determined in land use plans and ensure humane disposition of excess animals through adoption or other methods.
- Carry out adoption program to meet the planned adoption target of 13,500 wild horses and burros (a 50 percent increase over Fiscal Year 1986) and identify approaches for additional adoptions. Because of the emphasis on adoptions and the amount of funding needed to maintain unadopted animals, fewer animals— approximately 8,500— will be gathered.
- Review the recommendations of the Wild Horse and Burro Advisory Board, examine closely all aspects of the program, and develop a comprehensive policy that will enable more efficient administration of the Wild Free-Roaming Horse and Burro Act while ensuring humane treatment of the animals.

Support Services

Cadastral Survey

- Streamline the cadastral survey program.

Fire and Aviation Management

- Strengthen the aviation management program to ensure safe and cost-effective aviation is provided to BLM's resource managers.
- Review BLM's fire management program.

Volunteers and Other Contributed Services

- Work with BLM field managers and volunteer coordinators to improve stewardship on the Public Lands.

General Administration

- Streamline administrative processes by simplifying or reducing processing requirements and using automation when feasible.
- Continue to develop mechanisms to enhance and improve overall employee career development programs.
- Continue to use private banking "lockbox" facilities that permit the use of an electronic funds transfer system to expedite the collection and deposit of revenues. Projections for Oregon and California Grant Lands timber collections indicate that interest savings for Fiscal Year 1987 could exceed $200,000, using the lockbox facilities. It is also projected that a total of $27 million will be collected via lockbox procedures for the bonus bids and first year's rentals for onshore mineral competitive lease sales. Utilization of lockbox could produce an additional $52,500 in interest savings.

Photographer: Tony Staed

APPENDIX A
"VOLUNTEERS FOR THE PUBLIC LANDS" NATIONAL AWARDS

APPENDIX A
"VOLUNTEERS FOR THE PUBLIC LANDS" NATIONAL AWARDS

Thirty individual volunteers and 17 volunteer groups were honored by the Bureau of Land Management (BLM) for services contributed during 1986 to assist the agency in managing the Public Lands.

Ten of the winners of BLM's first "Volunteers for the Public Lands" national awards were awarded plaques for "exemplary" service, and 37 were awarded certificates for "outstanding" service.

In making the awards, BLM Director Robert F. Burford acknowledged "with great appreciation" the winners' contributions to "the conservation and management of natural or cultural resources of the United States through volunteer service for America's Public Lands." The winners:

FOR "EXEMPLARY" VOLUNTEER SERVICE

Individual Volunteers

Patricia Robins Flint of Dolores, Colorado, has volunteered her archaeological skill since 1982 at BLM's Anasazi Heritage Center. Dr. Flint's work included surveys and excavation, collections management, conducting tours, developing educational materials, and recruiting and supervising other volunteers.

Jack Glover, a senior citizen of Roseburg, Oregon, succeeded over the last 13 years in gaining Federal, State and community support for construction of the 79-mile North Umpqua Trail. Since 1981, Mr. Glover has provided over 2,500 hours of his trail-building labor to make the trail a reality.

Judy and Dick Newbold, from Hanover, Pennsylvania, have served as campground hosts at Burro Creek, near Kingman, Arizona, for eight months out of each year since 1982. They presented to campground visitors hand-drawn maps of nearby wildlife and geologic areas and a slideshow on desert wildflowers. The Newbolds also volunteered for BLM's wildlife program, conducting a raptor inventory of Hualapai Valley and monitoring 24 nests of rare species of hawks.

Laurie Zuber has coordinated the volunteer program for BLM's Ridgecrest Resource Area, California Desert District, for the past six years. She has contributed over 2,900 volunteer hours and handled all administrative requirements for a program averaging 16 volunteers and several organizations.

Organized Volunteer Groups

The Fraternity of the Desert Bighorn has served over the last three years in the Las Vegas and Ely Districts, Nevada, by contributing construction labor, project design, equipment, and materials for wildlife habitat improvements, such as water developments and protective fences.

The Friends of Red Rock Canyon contribute to the success of the interpretive and resource management programs at BLM's Red Rock Canyon Recreation Lands, near Las Vegas, Nevada. Members of this volunteer group staff the visitor center information desk, lead interpretive walks, catalog slides, cosponsor (with BLM) environmental education workshops, pick up litter, and assist in patrols and photomonitoring of resources. The group donates more than 2,000 hours each year to this popular recreation area.

The Garnet Preservation Association has worked with Montana's Butte District since 1982 to stabilize and restore Garnet Ghost Town, a turn-of-the-century mining camp near Missoula that has become a popular attraction for visitors interested in the early development of the American West.

Garten Foundation's Fishermen's Bend Volunteers, Salem, Oregon, have donated their labor two days a week for 40 weeks at the Fishermen's Bend Recreation Site. These volunteers are seven mentally handicapped persons, ranging in age from 20 to 30, who have contributed more than 1,700 hours of work in trail maintenance, building and grounds maintenance, rehabilitation work, and cleanup.

The Southwestern Region of the National Speleological Society for 20 years has given volunteer assistance and expertise in the care of over 800 caves near Roswell, New Mexico. The group has helped conduct tours, discover new caves, conduct migratory bat population censuses, produce photographic journals, conduct inventories, map caves, and remove trash and graffiti from caves.

FOR "OUTSTANDING" VOLUNTEER SERVICE

Individual Volunteers

Roger and Donna Aitkenhead monitored wildlife

in the summers of 1985 and 1986 and provided professional quality photography for the Susanville, California District.

Richard Austin for the past two years has assisted in operating a mobile visitor contact trailer and informing visitors about special management areas in California's Desert District.

William X. Chavez, a professor at New Mexico Institute of Mining and Technology, organized and led his students in a volunteer project to completely inventory all mining claims within the Sierra Ladrones Wilderness Study Area in New Mexico.

Keith Collins assisted the Lander Resource Area, Wyoming, to inventory and evaluate the Rawlins-Fort Washakie Stage Line, which is eligible for the National Register of Historic Places, and the Oregon-Mormon National Historic Trail.

Andrew and Julia Craw, a septuagenarian couple from Alturas, California, inventoried cultural and paleontological resources on approximately 23 miles of ephemeral stream courses and supplied BLM with survey data, site records, and detailed journals.

Four college-student interns—***Michael Fong*** of the University of California at Berkeley, and ***Sally Hunt, Sonja Duke,*** and ***Julie McLean*** of the University of Washington—worked as a group, completing 3,000 acres of cultural resource inventory in Salt Lake District, Utah. They also designed and constructed two interpretive displays for the district office reception area.

Norma Fullmer was a volunteer recreation worker for 16 months on the Little Sahara Recreation Area in Utah where she worked in a variety of jobs, such as facilities maintenance, and assisted in search-and-rescue.

Sandra Gourdin was a volunteer receptionist and temporary fire dispatcher at the Spokane, Washington District.

John Hunt was a volunteer river ranger for three months on the Owhyee National Wild and Scenic River, Vale District, Oregon. He conducted river safety and maintenance patrols and assisted visitors on 95 miles of river.

Andrea D. Kurman and ***Sandra A. Major,*** Student Conservation Program participants, helped to organize and carry out many cave protection, restoration, and research projects, including writing conservation plans for two fragile caves in New Mexico's Roswell District.

Lorene Lambert volunteered her professional public relations skills in support of the Tennessee Wild Horse and Burro Days, an event that drew 3,800 people and where 160 wild horses and burros were adopted.

Judy Perkins volunteered approximately 1,000 hours through the summer of 1986 in the Winnemucca District, Nevada. She completed a back-country use survey, provided visitor information about the area, and did cleanup work at Onion Valley Reservoir.

Neil Rizos, a Student Conservation Program participant in the Dillon Resource Area, Montana, conducted a wildlife inventory of more than 130,000 acres, locating approximately 100 ferruginous hawk nests.

Stephen Schaefer, a Student Conservation Program participant, assisted BLM and the Wyoming Department of Environmental Quality in plugging 21,000 open drill holes in the Shirley Basin abandoned drill hole project. He helped supervise a crew of 30 college and high school students to complete the project ahead of schedule.

Nobel Stidham invented, designed, and built a cave graffiti-removal machine. He contributed his own money and time to develop the machine, which he then made available to the Roswell, New Mexico District Office on a long-term loan.

Wayne and Judy Sutherland, Pete Uhl, and Jerry Dick worked as volunteers with the Worland, Wyoming District's cave management program. They photomonitored Horsethief Cave to document the effects of 11 years of visitor use on fragile and unique cave resources and then documented recommendations for future equipment needs, methodology, and management direction for the cave.

Organized Volunteer Groups

Anchorage School District Carreer Center, associated with a vocational high school in Anchorage, Alaska, has contributed continued service for BLM during the past 11 years. The high school staff has provided as many as 80 students annually in support of such BLM projects as Alaska Outdoor Week and to conduct such work as trail clearing, graphics, and food service.

Eastern Oregon Furtakers Association, Vale, Oregon, planted vegetation such as willow, cottonwood, and olive trees along streams and reservoirs.

Friends of the Mustangs, Grand Junction, Colorado, over the past four years has inventoried and monitored wild horses, assisted potential adoptors, constructed facilities, and maintained the animal stock at the Little Bookcliffs Wild Horse Area, a 28,000-acre tract of Public Land near Grand Junction.

The Goddard High School Chapter of the Future Farmers of America has done monitoring studies, experimental brush control, erosion control, and construction work since 1984 for the Roswell District, New Mexico.

Hidden Cave Volunteer Tour Guides, Carson City, Nevada, has for 11 years conducted an active program of cultural resources interpretation at the nationally significant Grimes Point Archaeological Area.

Museum of Western Colorado, Grand Junction, provided and led volunteers who did 4,000 hours work on BLM's 280-acre Rabbit Valley Site, which contains a significant concentration of plant and animal fossils. As part of their work in developing the site, they constructed a 1-mile fence and a trail-loop to take visitors on the "Trail Through Time" and developed a brochure, displays, and signs to inform the public of the paleontological, geological, and natural resources of this area.

Native Plant Society of Oregon funded and conducted plant inventories in three research natural areas. Members of this organization collected and identified nearly 200 plants and described their habitats in eastern Oregon.

New Mexico State University Chapter of the Wildlife Society, over the last two years, built three new water units for bighorn sheep, repaired older units, fenced a spring to improve riparian habitat, and conducted vegetation studies in deer and ibex areas near Las Cruces, New Mexico.

New Mexico Volunteers for the Outdoors contributed over 360 hours of trail work on the Rio Grande Gorge.

Powder River Sportsmen, Vale, Oregon, repaired riparian fence enclosures and improved key winter ranges of deer by planting bitterbrush, a preferred big game forage.

Region VI of the Pacific Northwest 4-Wheel Drive Association, an organization of 16 different clubs from south and central Oregon, contributed over 1,500 hours of labor in the Sand Dunes area of Christmas Valley. Projects included fencing rare plant sites and areas containing fragile fossils and repairing vandalized signs and toilets.

Sportsmen's Council of Central California, Bakersfield, raised $9,692 from State and local governments, as well as private individuals and groups, so that a 2.4-mile trail, two gates, and a fence alteration could be constructed to provide access into the 58,000-acre Caliente National Cooperative Land and Wildlife Management Area.

BLMers Honored for Volunteer-Related Service

BLM also recognized eight of its own employees and six employee units for their successful initiatives and leadership in 1986 in recruiting and utilizing the contributed services of volunteers. These award winners are:

For "Exemplary" Service

Individuals

Francis Berg, archaeologist for the Ukiah, California District, has led a series of volunteer work-education projects through which 150 college students, faculty members, and citizens have recovered and conserved artifacts from endangered prehistoric sites in the King Range National Conservation Area and elsewhere along the northern California coast. The shoreline sites are being damaged by erosion due to winter storms and wave action. The four-week summer projects provide unusual educational benefits to the students, including evening seminars led by visiting senior archaeologists after the day's digging is done. Over the last three years these work-and-learn projects and related work have attracted approximately 12,000 volunteer work-hours.

Craig Sorenson, outdoor recreation planner, Rawlins, Wyoming District, solicited and guided volunteers for recreation work in the Lander Resource Area. He has supervised a Green Thumb worker for eight years, set up a group of high school students to work on recreation and wildlife projects, originated an alternative sentencing program, and started a project involving prison farm inmate crews to work on various projects.

Richard Speegle, outdoor recreation planner for the Taos Resource Area in New Mexico, attracted volunteers into the recreation program, netting over $56,000 in equivalent value to the Government, and helped establish a Volunteers for the Outdoors chapter in Taos.

Stephen P. Walker, a heavy-equipment operator in Oregon's Roseburg District, initiated an annual community-wide clean-up of the banks of the North Umpqua River. Some 300 volunteers from 25 community interest groups, along with BLM and U.S. Forest Service employees, each year remove more than 20 tons of litter from the banks of the river. Mr. Walker's work on the river cleanup project has been on his own time and unrelated to his BLM job.

Catherine H. Yates, archaeologist for the Tulsa District in Oklahoma, recruited Native American volunteers to gather information on cultural resources, sacred site locations, burial areas, and historic settlements in the Oklahoma Resource Area.

BLM UNITS

Multi-Resources Staff of the Las Cruces/Lordsburg Resource Area, New Mexico, has marshalled an estimated 8,000 hours of work by volunteers over the last three years, including Boy Scouts working on the annual Project SOAR (Save Our American Resources) and supervising other Scouts to earn Eagle Scout rank; members of the Las Cruces and El Paso Chapters of the Sierra Club monitoring wilderness study areas; and New Mexico State University students helping to build seven catchments for desert bighorn sheep.

Ukiah District, California, during the last five years has attracted more than 1,156 volunteers who have donated 145,505 hours (70 work-years) valued at $1.08 million in support of the district's resource management programs. The district has a diversified volunteer program involving every organizational unit, including three resource areas and four district divisions. Stream clearance and rehabilitation, tree planting, trail maintenance and construction, and other labor-intensive work was accomplished by student interns, class projects, community service court referrals, civic clubs, youth programs, special interest groups, Student Conservation Association, BLM retirees, employees and their families. In Fiscal Year 1986, Ukiah attracted 349 volunteers who contributed 34,615 hours of service.

Yuma District, Arizona, during 1986, utilized 174 volunteers who contributed 50,126 work-hours (approximately 28 work-years). Its volunteer work-years as a percentage of employee work-years was 45.65 percent, highest in BLM. Campground hosts assisted visitors and performed maintenance chores. Volunteers publish the "Snowbird Messenger" monthly from November through March for all visitors to Long-Term Visitor Areas. The Yuma District's volunteer training program and supplemental volunteer manual have also been used by other BLM districts.

FOR "OUTSTANDING" SERVICE

INDIVIDUALS

Phil Detrich and ***Bob Lehman,*** wildlife biologists, California State Office, recruited volunteers for the two-year Cache Creek Wintering Bald Eagle Study near Ukiah, California. They collected data upon which to base a biological recommendation for routing a geothermal power line. The volunteer labor totalled 3,640 hours with an estimated value exceeding $25,000.

Douglas Dodge, Salt Lake District archaeologist, during the past three years developed an archaeological internship-volunteer program, which began with two Utah universities and local high schools and has expanded its recruiting to 11 Western universities. He also coordinated similar work on three major projects—two interstate fiber-optic cable proposals and the Great Salt Lake Pumping Project.

BLM UNITS

Caliente Mountain Trail Project Team, Caliente Resource Area, Bakersfield District, sought financial support (approximately $10,000) from the Sportsmen's Council of Central California to construct a foot and equestrian trail on an existing easement. In addition to securing contributed funding, the Project Team's volunteer-related work included survey support, trail layout, administrative support, and actual on-site

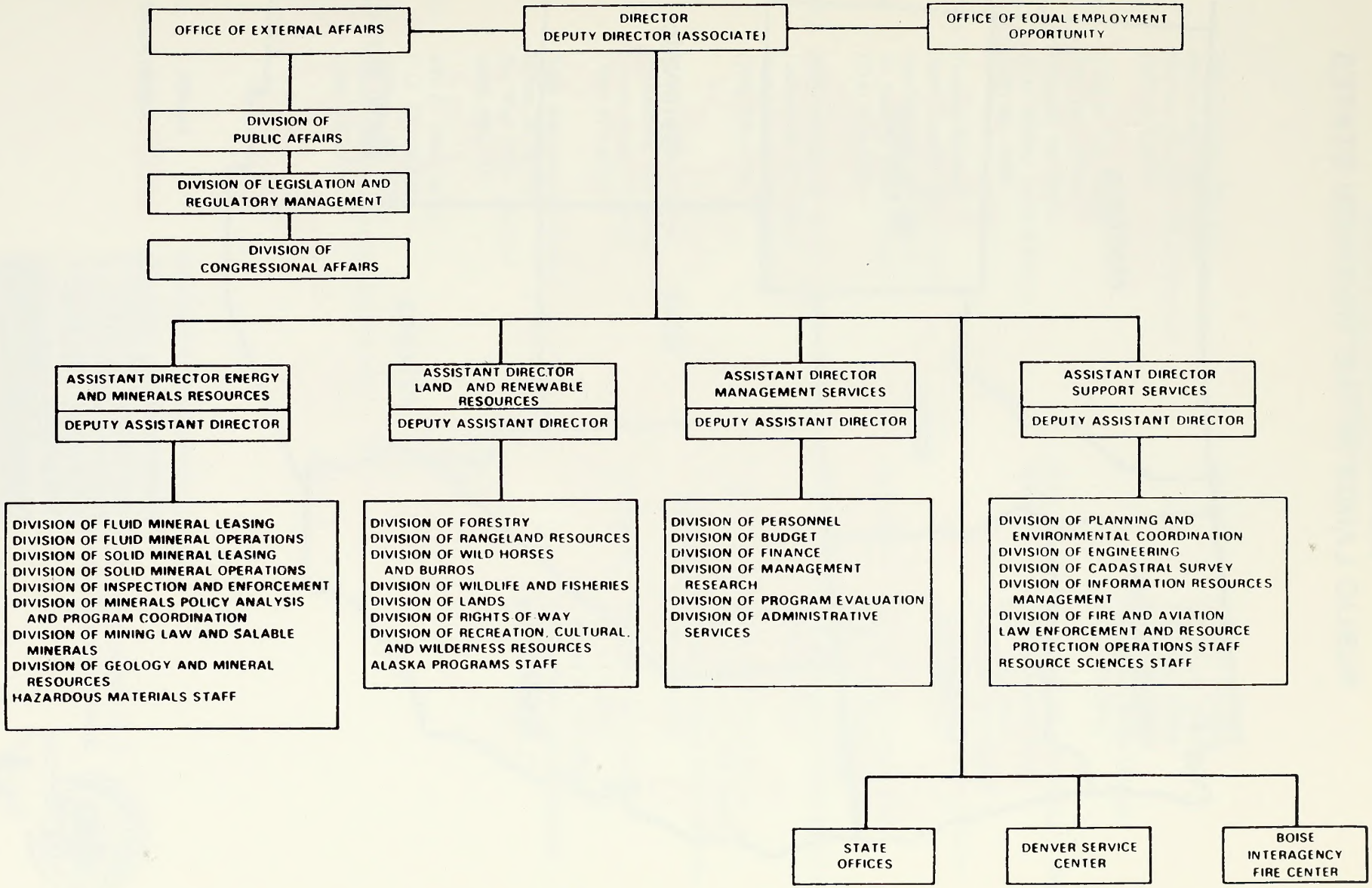
supervision of labor crews. As a result of their volunteer-related work, the 2.4-mile trail through rugged terrain was completed one year before it was originally planned to have begun.

San Juan Resource Area, Montrose District, Colorado, attracted 4,731 hours of volunteer time during 1986, with 132 volunteers contributing services valued at $28,850. Volunteers have provided a large variety of services including: cleaning up at recreation sites and along the Dolores River; fencing a newly-designated research natural area to protect endangered reptiles; managing collections and packing materials for the Anasazi Heritage Center; handling tours, special volunteer days, and daily operations at the Center's lab; inventorying and stabilizing cultural resource sites; installing a guzzler for wildlife; and gathering fuelwood for senior citizens. The volunteers included Boy Scouts, college students, members of environmental groups, amateur archaeologists, and senior citizens.

Taos Resource Area, Albuquerque District, New Mexico, has expanded its volunteer program from involvement of one resource program to four resource programs plus administration, and from 48 volunteers in 1984 to 198 volunteers in 1986. Over this four-year period, the resource area has involved 462 volunteers who have contributed 13,112 volunteer hours for an estimated $192,523 worth of work accomplished at a cost to BLM of $33,015. Volunteers were particularly helpful in the outdoor recreation work of the resource area. Given the relative remoteness of the Taos Resource Area from populated areas, the accomplishments of the resource staff are particularly noteworthy.

APPENDIX B
BLM ORGANIZATION

BUREAU OF LAND MANAGEMENT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DIVISION OF PUBLIC AFFAIRS
DIVISION OF LEGISLATION AND REGULATORY MANAGEMENT
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DEPUTY ASSISTANT DIRECTOR
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DIVISION OF FLUID MINERAL OPERATIONS
DIVISION OF SOLID MINERAL LEASING
DIVISION OF SOLID MINERAL OPERATIONS
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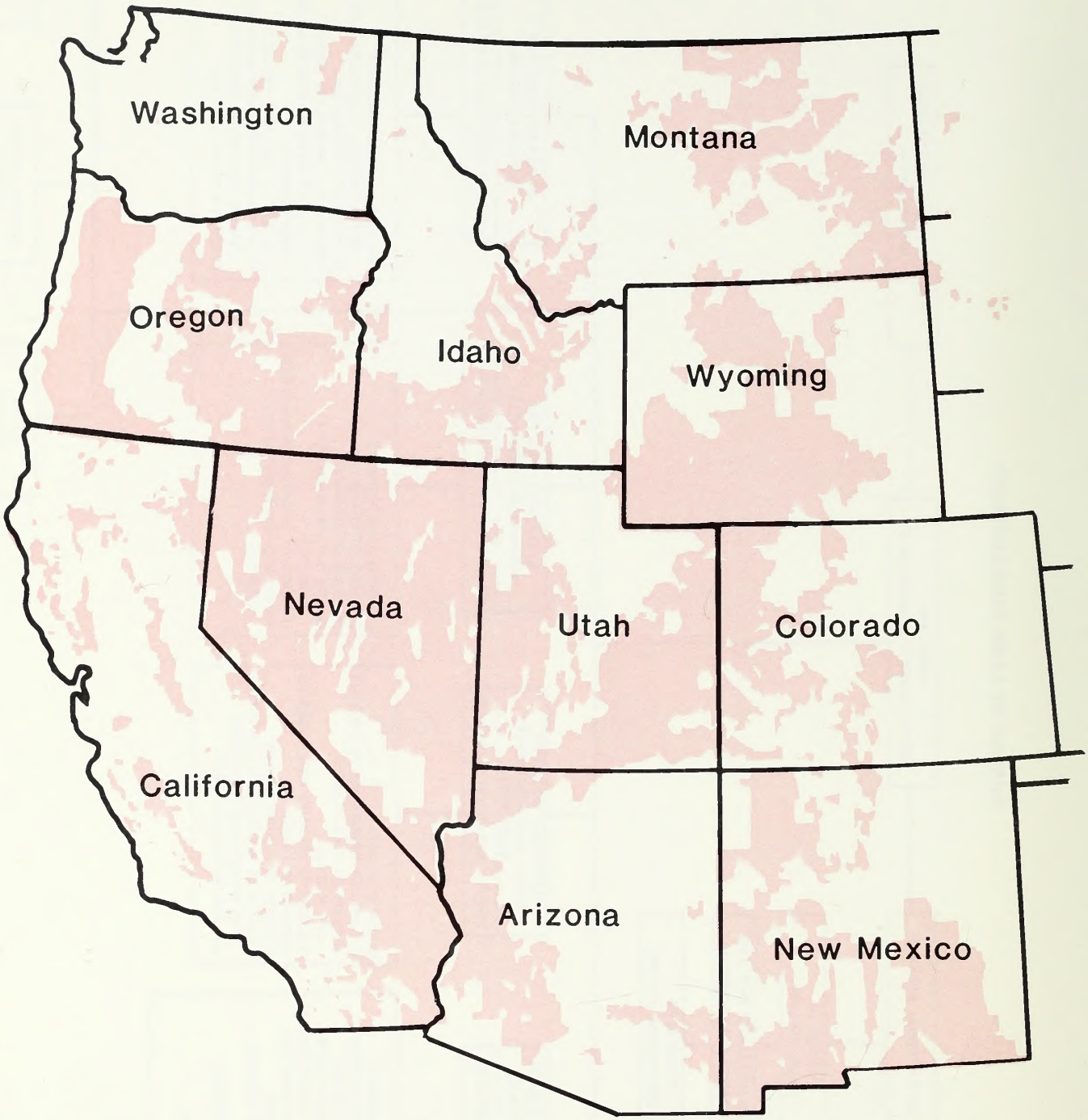
STATE OFFICES
DENVER SERVICE CENTER
BOISE INTERAGENCY FIRE CENTER

PUBLIC LANDS IN THE WESTERN STATES



Legend

LANDS MANAGED BY BLM

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Bureau of Land Management

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